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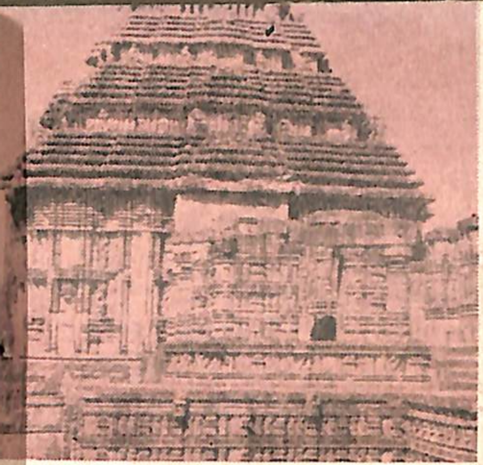

ORISSA REVIEW

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- Government's 22-point programme
- Industrial Potential of Orissa
- Mineral Wealth of Orissa
- Scope for Business in Orissa
- National Awards for Orissa Handicraft
- Nehru—Builder of Modern India
- Inside the State

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Orissa Review

JUNE 1967—JAISTHA 1889

ORISSA REVIEW seeks to provide a condensed record of the activities and official announcements of the Government of Orissa and other useful information. Many items appear in summarised form. Such items should not be treated as complete and authoritative version.

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ORISSA REVIEW

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22-Point Common Programme accepted as Principle of the new Government in Orissa

1. Establishment of a clean and good Government.

2. Ruthless elimination of corruption, favouritism and nepotism at all levels and setting up of a Commission for Enquiry into charges of corruption by Ministers.

3. Setting up an institution of the type of Obmudsman for eradication of corruption.

4. Increasing efficiency, uprightness and integrity of administration and elimination of administrative delays.

5. Establishment of Rule of Law.

6. Change of out-look of the Police for public service and increasing their efficiency and sense of discipline.

7. Freeing the administration from political pressures and ensuring impartiality and fair deal to the employees.

8. Equal justice and fair dealing for all

9. Utmost economy in expenditure and strict avoidance of all wasteful expenditure.

10. Elimination of unnecessary control, permits, licenses and quotas and administration of remaining controls, permits, licenses and quotas through a non-political independent statutory Board.

11. Abolition of Land Revenue, reduction of tax burden and elimination of harassment in collection of State dues.

12. Establishment, expansion and completion of existing Universities.

13. Elimination of restrictive procedures and creation of proper conditions and freedom for expansion of business and industry and creation of increasing employment opportunities.

14. Introduction of Oriya as State language in all spheres of administration.

15. Special attention for development of Scheduled Castes and Tribes and Other Backward Classes and under developed or backward areas.

16. Abolition of multifarious Panchayat taxes and entrusting Panchayats with resources of non-tax revenue and effecting real decentralisation as envisaged in the directive principles of the Constitution.

17. Liberating primary education from control of Panchayat Samitis.

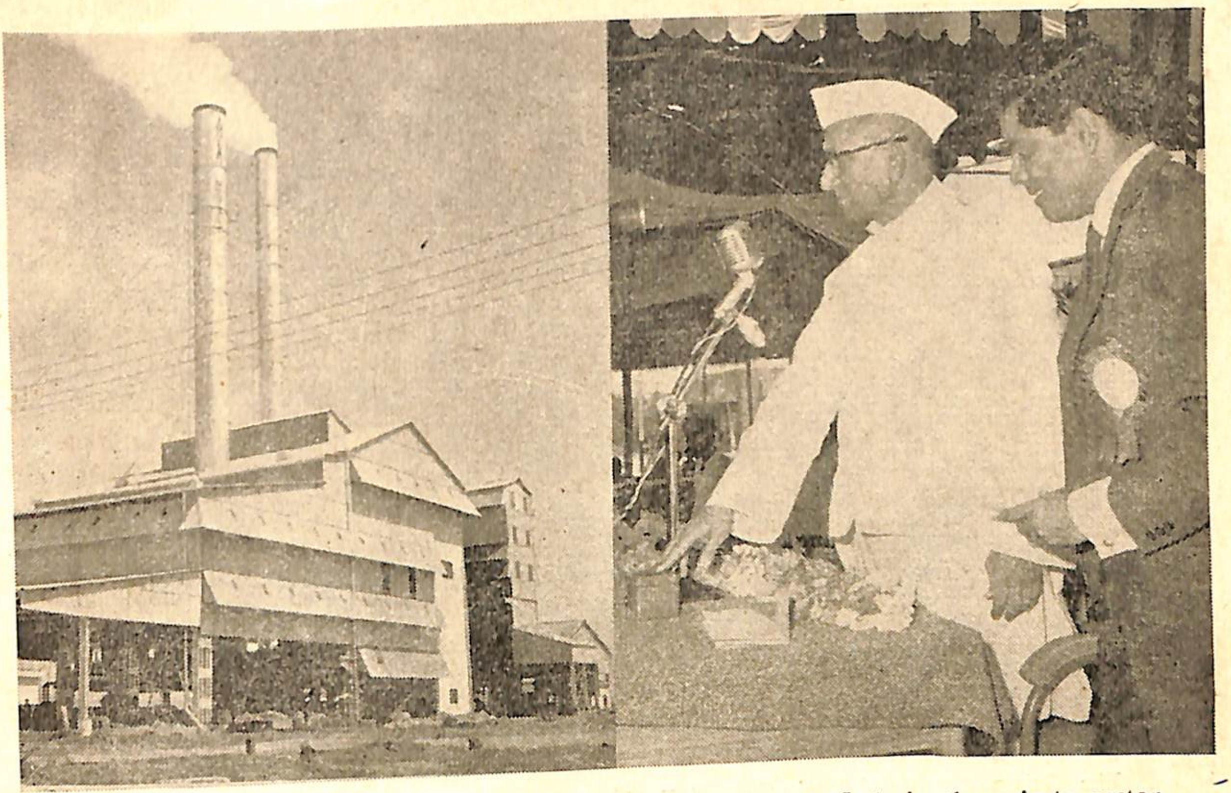
18. Expansion of both technical and general education throughout the State with special attention to backward areas.

19. Reorientation of development plans on a practical basis with emphasis on development of agriculture, provisions of basic necessities for the people and provision of the infra-structure for economic development.

20. Changing of monopoly system in Kendu leaves Trade.

21. Appointment of Famine Commission for enquiry and report on all respects of the Orissa Famine of 1966.

22. Evaluation of the working of State Public Sector undertakings, Co-operative and Panchayat Industries.



The Ferro-Silicon plant of the Indian Metals & Ferro Alloys, Ltd. in the private sector with the present production capacity of 7,000 tonnes per annum was inaugurated by the Deputy Prime Minister, Shri Morarji Desai at Therubali in the district of Koraput on May 3, 1967

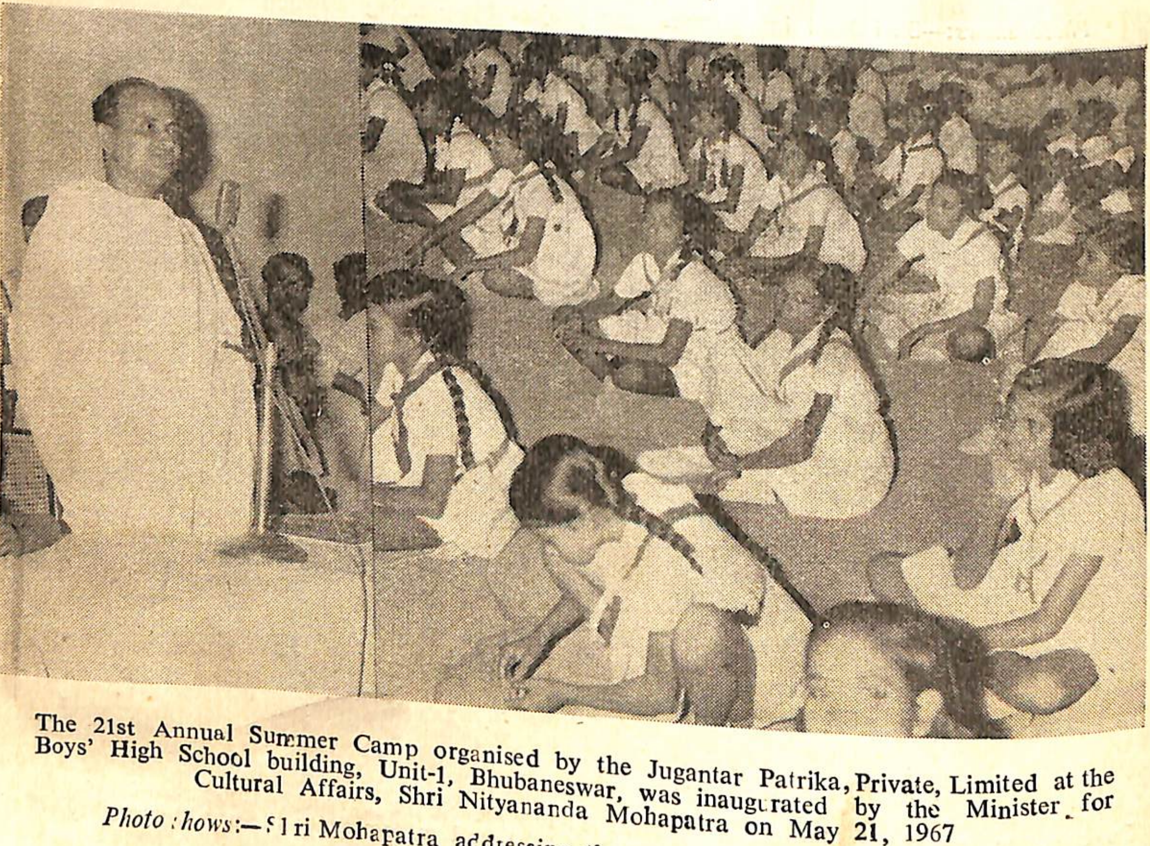
Photo shows:—Shri Desai inaugurating the project by pressing a switch

To celebrate the Bhanja Jayanti, a function held at Rabindra Mandap, Bhubaneswar on May 21, 1967. Shri P. N. Mohanty, I. A. S. (Rtd.) and an eminent literary personality of Orissa presided over the function.

Photo shows:—Dr. Bichitrananda Mohanty addressing the gathering.

The Orissa Centre of Institution of Engineers Celebrated its Annual Day On May 7, 1967 at Bhubaneswar.

Photo shows:—Shri R. N. Singh Deo, Chief Minister, Orissa delivering his inaugural address.



The 21st Annual Summer Camp organised by the Jugantar Patrika, Private, Limited at the Boys' High School building, Unit-1, Bhubaneswar, was inaugurated by the Minister for Cultural Affairs, Shri Nityananda Mohapatra on May 21, 1967

Photo shows:—Shri Mohapatra addressing the participants in the Summer camp

INDUSTRIAL POTENTIAL OF ORISSA

No State in India has the same combination of mineral wealth, power potential, water availability and deep port facilities as Orissa has. Those who know of Orissa as an under-developed State are no less aware of the fact that Orissa is a State of the future. Back in 1951-52, there was no worthwhile industry to speak of. The industrial scene was dominated by non-factory, cottage type of production. But during the First, Second and Third Five Year Plans, the industrial picture has gradually changed. A Steel Plant at Rourkela, a Cement Plant at Rajgangpur, Aluminium Industry in Hirakud, Paper Factories in Brajarajnagar, Choudwar and Rayagada, a Pig Iron Plant in Badbil, Ferro-Manganese Plants at Joda and Rayagada, the Ferro-Silicon Plant at Tiruvili, Engineering Industries at Choudwar and Khansbahal, Ceramic Glass and Refractory Units at Barang, Khansbahal, Rajgangpur, Latikata, etc., a Textile Mill at Choudwar, a Spinning Mill at Jharsugada, a Sugar Factory at Aska—all these and other working units indicate the diversified industrial structure that has developed in Orissa. Several new plants are under different ages of erection and many among them shall be commissioned shortly or in the next one or two years, like Caustic Soda Plant at Ganjam, Cement Factory at Bargarh, MIG Factory at Sunabeda, a Cable Factory at Hirakud, East Coast Salt and Chemicals in Sumandi, Ferro-Chrome Plant at Jajpur, Spinning Mill at Bargarh, etc. Statisticians say that the rate of industrial growth of Orissa has been remarkable. During the First Plan, the net value of industrial output rose by 58 per cent and during the period from 1956-57 to 1960-61, it has risen by 375 per cent. But we should remember that the base at the starting point in 1951-52 was poor. Orissa still has a long way to go because the share of orissa in the industrial output of the country has risen from 0·26 per cent in 1950-51 to only about 2 per cent in 1960-61. But the progress achieved in the last 25 years and the extraordinary potential of the State for industrial development makes it possible to envtsage that during the Fourth Plan and coming plan periods, it should be possible to achieve even higher rates of growth than what has been obtained in the past.

DEVELOPMENT OF INFRA-STRUCTURE

No programme of large-scale industrialisation can succeed unless there is well-developed infra-structure to support this programme. A weak infra-structure, particularly in the field of road and railway development and power generation and distribution has, in fact, been mainly responsible for holding up, in the past, the exploitation of Orissa's vast mineral and forest wealth. The situation has now changed and the industrial and mineral zones of Orissa are now linked by a satisfactory net-work of roads. The National Highways, State Highways, Express Highway and major district roads connect the different areas of the State with all-weather communication. Road development continues to enjoy a high priority in the State Plans.

There has also been some improvement in the railway communication of the State. The Calcutta-Madras main line which runs through the coastal districts of Orissa and the Calcutta-Bombay main line which serves Rourkela, Rajgangpur and Jharsuguda areas are being doubled. A new rail link from Sambalpur to Titilagarh has opened up an interior portion of Orissa. A part of Dandakaranya area in Koraput district is being opened up by DBK railway. The State Government has also taken up strongly with the Central Government the need to connect Paradeep with railway line with the least possible delay. This has become an imperative necessity with the development of this fine port.

By far the most remarkable development in past 5 years in the field of communication is the commissioning of the deep sea port at Paradeep. This port provides sufficient draft to berth 60,000 tons of bulk carriers and as such it is the deepest port in India. The mechanical facilities, capable of loading ore at the rate of 2,500 tons per hour, the immense mineral and forest wealth of the hinterland of Paradeep port and the traffic that is likely to develop within the next 10—15 years will all combine to create a very vibrant Industrial sector in and around Paradeep. A map showing the lay-out of the Paradeep port at its full development is enclosed. A chart showing the comparative coverage of the hinterlands of ports of Calcutta, Paradeep and Visakhapatnam is attached and would reveal that with the establishment of rail lines to Rourkela, this port would serve as the convenient outlet of the industrial belts of north and north-west Orissa, South Bihar, Eastern M. P. and even as far as Eastern U. P.

Abundant availability of power is one of the chief attractions for starting industries in Orissa. At the end of 1950 the installed capacity which was 9·6 M. W. rose to 260 M. W. by the end of Second Plan. At the end of the Third Plan it stood at 429·50 M. W. and will leap to 914 M. W. by the end of 1969-70 with the commissioning of Talcher Thermal Station and the Balimela Project. The following statement shows the installed capacity, capability, estimated peak load and the firm capacity of the power schemes of Orissa at the beginning of the Third Plan and at the end of the Fourth Plan.

	Beginning of the Third Plan	At the end of the Fourth Plan
(a) Installed Capacity	M. W. 172·75	M. W. 914·50
(b) Capability	M. W. 160·00	M. W. 797·00
(c) Peak load	M. W. 132·00	M. W. 703·00
(d) Firm capacity	M. W. 152·00	M. W. 470·50

Two units of Talcher Thermal Station with capacity of 125 M. W. will be commissioned within the next few months. The remaining two units with similar capacity are also expected to go into operation shortly. Of the six units of Balimela Project each having a capacity of 60 M. W. three are scheduled to be commissioned in 1968-69 and three in 1969-70. Preliminary work is likely to start towards the end of the Fourth Plan for the expansion of Talcher Thermal Station and in respect of Indravati Hydro-Electric Project. Power, therefore, shall be plentifully available in Orissa for meeting all industrial needs.

INDUSTRIAL POTENTIAL DURING FOURTH PLAN— NCAER ANALYSIS

After the National Council of Applied Economic Research, New Delhi, published its Techno-Economic Survey of Orissa in the year 1962, the State Government requested the same organisation to undertake a survey of the industrial potential of Orissa and suggest an industrial programme for Fourth Plan. The Council has sent to the State Government in March, 1967 a detailed report on industrial programmes for the Fourth Five-Year Plan for Orissa. This report is under print and it is expected that it will be available for public circulation very early.

The NCAER report contains a comprehensive analysis of industrial programme in Orissa to be undertaken during the period 1966-67 to 1970-71. The Council has suggested a total investment of 371 crores during the Fourth Plan period. The Industry group analysis of this investment is as follows:—

Sl. No.	Industry Group	Additional investment during Fourth Plan (Rs. in crores)	Percentage of totals
(1)	(2)	(3)	(4)
1	Mining Industries and mineral development.	66·21	17·8
2	Metallurgical and metal-based industries.	227·00	61·5
3	Mineral-based industries non-metallurgical.	14·82	4·0
4	Agriculture, live-stock and forest-based industries.	18·91	5·0
5	Chemical and allied industries.	41·12	10·8
6	Small industries ..	3·25	0·9
	Total	371·31	100·00

[The above statement contains a provision of Rs. 147 crores for expansion of Rourkela Steel Plant and Rs. 50 crores for preliminary expenses in connection with an integrated iron steel plant in Orissa during the Fifth Plan period. If we exclude this provision, the statement contains additional investment proposals to the tune of Rs. 174·31 crores].

The Council's report contains a very detailed study of the industrial potential under each major group of industries. The pros and cons of starting several industrial ventures have been carefully evaluated on the basis of which the Council has recommended the starting of several new industries. A full list of industries recommended by the National Council of Applied Economic Research is given in the next page.

INVESTMENTS IN THE FOURTH PLAN BY PUBLIC AND PRIVATE SECTORS

(Rs. in crores)

Sl. No.	Industries	Public sector Central Govt.	Public sector State Govt.	Private sector	Total
1	2	3	4	5	6
	Mining Industries				
1	Coal ..	..	10·00	..	10·00
2	Iron ore ..	33·50	12·50	..	46·00
3	Manganese ore ..	..	..	0·90	0·90
4	Limestone and dolomite ..	..	..	2·15	2·15
5 6 7	Chromite Fireclay Quartzite ..	..	..	0·15	0·15
8	Salt ..	..	..	0·35	0·35
9	Working capital	3·70	2·00	0·26	5·96
10	Mineral exploration ..	..	0·70	..	0·70
	Sub-Total ..	37·20	25·20	3·81	66·21
	Metallurgical and Metal-based Industries				
11	Foundry grade pig iron ..	..	5·00	..	5·00
12	Mild steel ..	197·00	..	..	197·00
13	Ferro chrome ..	..	0·80	..	0·80

Sl. No.	Industries	Public sector Central Govt.	Public sector State Govt.	Private sector	Total
1	2	3	4	5	6
14	Ferro silicon ..	..	0·20	..	0·20
15	Ferro vanadium ..	..	..		..
16	Vanadium pig iron ..	..	0·80	..	0·80
17	Re-rolling ..	..	..	0·30	0·30
18	Structural fabrication ..	..	0·20	0·10	0·30
19	Iron castings ..	..	0·10	0·05	0·30
20	Cast iron pipes ..	..	..	..	..
21	Aluminium rolled products ..	..	..	3·00	3·00
22	Other metallurgical Industries ..	..	..	0·50	0·50
23	Agricultural implements ..	..	..	0·25	0·25
24	Bolts, nuts and rivets ..	..	..	1·50	1·50
25	Wood and machine screws ..	..	..	1·50	1·50
26	Other metal products ..	..	..	0·15	0·15
27	Metallurgical, chemical and mining machinery.	..	..	2·50	2·50
28	Cement machinery ..	..	..	0·10	0·10
29	Agricultural tractors ..	..	1·60	..	1·60
30	Petrol/Kerosene engines ..	..	..	0·50	0·50
31	Power-driven pumps ..	..	..	4·50	4·50
32	Machine tool accessories ..	..	..	0·80	0·80
33	Other machinery ..	..	..	0·50	0·50
34	Power and distribution transformers	..	1·80		1·80
35	Electric motors ..	..	0·80	..	0·80
36	Switchgear and controlgear ..	..	1·00	..	1·00
37	ACSR conductors ..	..	0·10	0·10	0·20

Sl. No.	Industries	Public sector Central Govt.	Public sector State Govt.	Private sector	Total
1	2	3	4	5	6
38	Enamelled paper and cotton covered wires.	..	0·10	..	0·10
39	Other electrical industries	..	..	0·50	0·50
40	Fishing vessels boats and barges.	..	..	0·15	0·15
41	Other transport equipment	..	..	0·50	0·50
	Sub-Total	197·00	12·50	17·50	227·00
	Chemical and Allied Industries				
42	Urea	..	11·50	..	11·50
43	Ammonium nitrate	0·78	..	..	0·75
44	Ammonium chloride	..	..	4·25	4·25
45	Calcium ammonium nitrate	..	..	..	..
46	Super phosphate	..	0·43	..	0·43
47	Caustic Soda	..	..	1·90	1·90
48	Sodaash	..	..	4·75	4·75
49	Polystrene	..	..	3·00	3·00
50	PVC	..	..	7·50	7·50
51	Reinforced plastics	..	..	0·60	0·60
52	Processing plastics	..	..	5·00	5·00
53	Synthetic detergents	..	..	0·60	0·60
54	Carboxyl methyl cellulose	..	..	0·10	0·10
55	Electroplating chemicals	..	..	0·05	0·05
56	Oxygen	..	..	0·26	0·26
57	Dissolved acetylene	..	..	0·40	0·40
	Sub-Total	0·78	11·93	28·41	41·12

Sl. No.	Industries	Public sector Central Govt.	Public sector State Govt.	Private sector	Total
1	2	3	4	5	6
Agriculture, Live-stock and Forest Industries					
58	Cotton yarn	..	--	..	..
59	Cotton fabrics	..	..	1·00	1·00
60	Polyvinyl alcohol	..	..	2·00	2·00
61	Nylon	..	..	0·87	0·87
62	Sugar	..	..	3·90	3·90
63	Rice milling	..	1·11	..	1·11
64	Rice bran oil	..	..	0·05	0·05
65	Tanning	..	..	0·03	0·03
66	Fish canning	..	..	0·03	0·03
67	Paper	..	..	8·50	8·50
68	Fibre board	..	..	0·75	0·75
69	Particle board	..	..	0·07	0·07
70	Myrobolan extract	..	..	0·60	0·60
	Sub-Total ..	..	1·11	17·80	18·91
Mineral-based Industries, Non-Metallurgical					
71	Low temperate carbonisation	..	9·70	..	9·70
72	Slag cement	3·70	..	..	3·70
73	Glass fibre and fibre products	..	..	0·30	0·30
74 75	Whiteware Sanitaryware	..	..	0·30	0·30
76	Cellular concrete building blocks.	..	..	0·70	0·70
77	Sand lime bricks	..	..	0·12	0·12
	Total ..	3·70	9·70	1·42	14·82
	Small Industries ..	..	..	3·25	3·25
	Grand Total ..	238·68	60·44	72·19	371·31

INDUSTRIAL BELTS AND ZONES

In the present state of development of the State 2 district industrial belts and 2 industrial zones can be clearly indentified.

These are—

- I. (*a*) Rourkela-Bonai-Talcher-Cuttack-Paradeep belt.
  - (*b*) Nayagarh-Tomka-Daitari-Paradeep belt.
- II. Rourkela-Rajgangpur-Jharsuguda-Bolangir-Titilagarh-Rayagada-Koraput belt leading to Vizag port.
- III. Industrial zone of Mayurbhanj district.
- IV. Industrial zone of Ganjam district.

These industrial belts and zones have been selected keeping in view the potential and necessity for starting a number of heavy, medium and small-scale industries. Each belt and zone has been selected from the point of view of availability of raw meterials, adequate water, power and communication facilities.

ROURKELA-BONAI-TALCHER-CUTTACK-PARADEEP INDUSTRIAL BELT

The Rourkela area, well known for the Steel Plant, Fertilizer Plant, Utkal Machinery, Rajgangpur Cement Plant, etc., has enormous potential which has not been fully developed. A recent survey has shown that the Rourkela area presents good prospects to locate a chemical equipment manufacturing plant with plates, sheets, etc., available from the Steel Plant.

With the intermediate products of the Fertilizer Plant (ethylene, ammonia, etc.,) and with the by-products of the Coke-oven Plant (benzene, napthalene, etc.) there is a possibility of realising a chain of organic chemical industries. For example, styrene, aniline, pthalic-anahydride, dye-stuffs, caprolactum, etc.

It is also possible to locate a small Fertilizer unit a Rourkela with the slag available from the L. D. converters and imported phosphatic rocks.

Bonai is a potential site for an integrated steel plant or a pig iron complex. This place is 50 K. Ms. south of Rourkela and is accessible by the S. E. Railways, the closest railway station being Patasai of the Bondamunda-Barsuan branch of the S. E. Railways. The proposed Lodani Dam on the Brahmani river will be the main source of water. The existing Hirakud-Talcher 132 K. V. Gird runs at a distance of 90 K. Ms. from the site. Iron ore is available from Khandahar block owned by the Orissa Mining Corporation, approximately 40 K. Ms. from the site. The coking coal from Ramgarh Colliery at a distance of 330 K. Ms. and the non-coking coal from Talcher at a distance of 130 K. Ms. from the site can be made available for this project. Lime-stone is available from Biramitrapur at a distance of 90 K. Ms. and Manganese from Dumaro at a distance of 35 K. Ms. The State

Government are very shortly going to have a survey of this area and getting a detailed Project Report prepared by a reputed firm of consultants.

Another very important industrial area of this belt is the Talcher industrial complex, the project report in regard to which has already been prepared by the State Government and is likely to be taken up for execution during the Fourth Five-Year Plan. This complex can produce 168,300 tons of low phos haematite grade foundry pig iron and 138,600 tons of high quality fertilizer (urea). The complex is based on the utilisation of non-coking coal available at Talcher about 2 K. Ms. from the proposed site to produce coke suitable for the low shaft furnace. The iron-ore from Tomka-Daitary will be utilised in smaller sizes i. e., below 1″. The by-product, i. e., the coke oven gas of the complex will constitute the feed stock for the manufacture of urea.

Setting up of a Cement Plant utilising 120,000 tons of slag available from the blast furnaces is a clear possibility.

Various chemical industries like Phenol recovery unit, plastics etc. based on the by-products of the coke oven like benzene, toluene, tar, etc., can also come up.

Another important region of this belt is the area around Cuttack which is the premier town of Orissa. The area adjoining the new railway siding joining Barang and Athgarh and close to the Naraj Dam can offer an excellent site for various engineering industries with export possibility through the port of paradeep. Plenty of water is available in this area.

Last but not the least, the Paradeep Port area itself is an ideal location for starting a variety of industries. The port presents a very good site for establishing a large-sized fertilizer plant based on naphtha feed stock either obtained from the coastal refineries of India or imported from abroad. The eastern region is particularly deficient in phosphatic fertilizer. Therefore, the Ammonia from the proposed large-sized fertilizer plant can be converted to phosphatic fertilizer based on imported phosphatic rocks. It is expected that iron ore shipment to East-European countries will expand in future and in that case phosphatic rock import can be achieved at a very reasonable cost. The setting up of a refinery with crude oil imported from outside the country and utilizing the naphtha produced from the refinery for the manufacture of ammonia is also quite feasible. In this case, a very big petro-chemical complex can be developed in Paradeep with as much advantage, if not more, as any other port city of India. There is also a proposal to set up a Caustic Soda and Ammonium Chloride Plant at Paradeep. Some parties are actively considering to utilise the salt obtained from Sumandi for this project initially and later on to develop and harvest the salt in Paradeep itself. These and several other export oriented industries can be started in

Paradeep. Besides being the deepest port in India, the special advantage of Paradeep is the availability of sweet water to the extent of nearly 400-500 cusecs.

NAYAGARH-TOMKA-DAITARI SUKINDA-PARADEEP INDUSTRIAL BELT

Consultants have suggested that there is an excellent feasibility of setting up a Pig-iron Plant or an integrated Iron & Steel Plant at Nayagarh near village Jhumpura in Keonjhar district. The proposed Jharpada Dam on the Daitari River shall be able to meet the water requirements and the Talcher-Joda grid of 220 K. V. can meet the power requirements of this complex. Iron-ore can be obtained from the Malangtoli Block which is at a distance of 25 K. Ms., coal from Jharia and Ramgarh at a distance of 280 K. Ms. and 300 K. Ms. respectively, lime-stone from Birmitrapur at a distance of 290 K. Ms. and manganese from Banspani at a distance of 50 K. Ms. In Tomka-Daitari-Sukinda an industrial complex can be developed on the basis of Saruabil Chromite, Tomka-Daitari Iron-ore, Quartz and other minerals. It hardly needs emphasis that this area is the richest in Chromite deposits in Asia. It is possible that the transport which carries the iron-ore to the proposed Talcher Industrial Complex can bring on its return journey for coke the ferro-alloy industries which may be set up in this area base on the Chromite and Quartzite minerals No wonder, Jajpur Road, the nearest rail-head to this belt, has started off with a ferro-chrome plant under construction by the Industrial Development Corporation. The Iron-ore fines which are not exportable can be palletised. A proposal to set up a palletisation plant in this area for export is in an advanced stage of finalisation. Incidentally, Saruabil Chromite Ore, a major part of which is shared and pulvarised, can be briquetted or palletised by the same plant, depending on the mode of demand of the two minerals. Depending on the life span of the Daitari Iron-Ore Project, the nickel occurrence in the ultra-basic area, south of Daitari, which is perhaps the only nickel-ferrous area in India, may be utilised for some industries.

ROURKELA-RAJGANGPUR-JHARSUGUDA-BOLANGIR TITILAGARH-RAYAGADA JEYPORE-INDUSTRIAL BELT

This belt has a tremendous potential for development of both metallurgical and chemical industries. Based on the availability of cement grade Limestone near Rajgangpur and Dungri, Cement Plants have already been set up in Rajgangpur and Bargarh by M/s. Orissa Cements and the Industrial Development Corporation of Orissa respectively. Further cement projects can be planned in Koraput district based on the limestone available from Sunki area and Malkangiri. In Koraput, the high grade limestone can be exploited for the installation of Calcium

Carbide industry and subsequently P.V.C. Kalahandi and Koraput contain high grade bauxite, which can be utilised for setting up a big-sized Aluminium Plant based on the power available from Balimela Hydro Project. Near Hirapur in Koraput district appreciable reserve of iron ore has already been found out and this may be utilised with the limestone from Malkangiri and the coke from either Singrani or Talcher for production of quality pig iron in small blast furnaces. Near Rayagada, there is appreciable reserve of Quartzite and Manganese minerals. Ferro-Alloy industries like Ferro-Silicon and Ferro-Manganese Plants are already working there. There is scope for putting up Plants for manufacture of pure Silicon, Silicon Glass, etc.

This area forms a part of Dandakaranya Project area. A Techno-Economic appraisal of the Indravati Basin area, done by the Study Team headed by Dr. A. Nagraj Rao, Adviser to the Planning Commission, has come to the conclusion that this area is rich in forest resources which can support a Central Pulp Mill, a Newsprint Plant or a Paper Factory, a Plant for producing Hard-Board, a Plant for producing commercial Plywood-*cum*-Flush door, a Particle Board Plant (Chip Board Plant), etc. While discussing the forest-based industries that can be started in Orissa, the National Council of Applied Economic Research has also reached similar conclusions. The total area under forests in the State is 25,000 sq. miles which constitutes 42 per cent of the total area of the State. The annual output of timber has been estimated at 17·7 million cft. out of which 7·4 million cft. is exported outside the State. Available timber for consumption in the State is around 4·7million cft. Besides this, the annual current output of bamboo in the State is 180,000 tons. Of this, only 40,000 tons of bamboo is utilised within the State for the production of paper. The potential yield of bamboo, according to the survey conducted by the State Forest Department, is 435,000 tons per annum. The forest resources that have been tapped so far are only for production of paper and the position of paper industry in the State is as follows:—

Unit	Licenced capacity	Item	Progress
1. Orient Paper Mill.	68,000	Paper & Paper Board.	Implemented
2. Titagarh Paper Mill.	18,000	Paper	Started production in 1960.
3. Straw products	18,000	Writing & Printing Paper.	Started production in 1962.

The total requirement of bamboo by these units will be about 125,000 tons per annum. Hence there is scope for further exploitation of bamboo resources for production of pulp and paper. The other timber resources, mainly Sal, can also be utilised for the production of paper and pulp. Several forest-based industries, as mentioned by Nagraj Committee Report can, therefore, be started in Orissa, particularly in the Indravati basin area.

MAYURBHANJ INDUSTRIAL ZONE

In Mayurbhanj district Quartzite and Vanadiferrous ores are available. It is feasible to set up a ferro-vanadium plant based on the vanadiferrous magnatites of various dimensions available in Sialnoi and Basantapur area and advance action in the form of a feasibility report has been undertaken. The vanadium content of the ore is near about 1 per cent. Good quality quartzite, fireclay and China clay are available in the area which can support an industrial structure based on Glass and Ceramic industries.

INDUSTRIAL ZONE OF GANJAM DISTRICT

Ganjam district with its coastal industrial salt units offers a good base for setting up soda ash and ammonium chloride units. The Industrial Development Corporation of Orissa has already set up an Industrial Grade Salt Plant at Sumandi for the manufacture of 150,000 tons of salt annually. This unit can be used as base material for the manufacture of soda ash and ammonium chloride by the well-known Toyo-Kotasu process. One Caustic Soda Plant has been commissioned by Jayashree Chemicals near Chatrapur. Chlorin of this Plant will constitute good base material for setting of Pesticide and Chemical Industries.

INCENTIVES TO INDUSTRIES

(a) *Industrial Area Scheme*

During the Fourth Plan period the State Government intends to develop industrial areas in important industrial towns in the State with a view to attract and accommodate large-scale industries. The proposal is to develop 350 acres in Rourkela, 250 acres in Paradeep, 200 acres in Talcher and 200 acres in Sunabeda. These industrial acres will have sufficient power to feed the industries located therein. Arrangements or water-supply will also be made to meet the water requirements of the industries. Proposals for acquisition of land have already been initiated and entrepreneurs who want to reserve sites may send their applications to the Directorate of Industries at Cuttack indicating their power and water requirements. The lands will be made available at economic prices to accommodate industries.

(b) *Financial Assistance*

Financial assistance is made available to industries by the Orissa State Finance Corporation established in March, 1957. The authorised share capital of the Corporation is Rs. 2 crores. The paid-up share capital is

Rs. 1 crore. The corporation gives financial accommodation for installation and expansion of industrial units in the State of Orissa by way of medium and long-term loans. The loans are repayable within a period of 10 to 12 years. In special cases the Corporation underwrites issue of shares floated by Public Limited Companies meant for establishment of industries in Orissa. The corporation gives financial assistance ranging from Rs. 25,000 to Rs. 20 lakhs in case of Public Limited Companies and Co-operative Societies and up to Rs. 10 lakhs in case of Private Limited Companies, Partnership and Joint Hindu family concerns. The loans will have to be secured by mortgage and hypothecation of the factory assets. In some cases mortgage of collateral properties is accepted if the factory assets as such do not cover the loan with requisite margin. Ordinarily the amount of loan will be limited to 50 per cent of the value of properties offered as security, but in cases of good industries the Corporation will relax the margin of security and give loan up to 70 per cent of the factory assets. The present rate of interest on loans is 8½ per cent per annum. There is a rebate of ½ per cent per annum for regular payment of dues of the Corporation.

The State Government also gives loans under the State-Aid to Industries Act. Loans under The State-Aid to Industries Act are sanctioned up to Rs. 20,000 by the Director of Industries on the recommendation of the Board of Industries. Loans beyond Rs. 20,000 are processed by the Orissa State Finance Corporation, acting as agents of Government. The rate of interest for loans under the State-Aid to Industries Act is 6½ per cent with a rebate of ½ per cent for regular payments.

The State Government also participates by investing in the share-capital of industries either by purchasing cumulative preference shares or equity shares. Each case is considered on merit.

OTHER INCENTIVES

The State Government is actively considering a proposal to subsidise the cost of preparation of feasibility reports. A project cell to provide consultancy services is also being set up. This organisation will take up survey of the resources of the State for setting up large-scale industries and also prepare feasibility reports on the different sectors in industries. Orissa is one of the few States having a State Purchase Organisation which will provide the marketing intelligence for the industries in the State. This organisation is being modelled in the pattern of the D. G. S. & D. and has in fact already done quite useful work in providing markets for the products of the small-scale industries in the State. Certain proposals for reduction in the incidence of Electricity Tariff for power intensive industries and certain concessions as regards Sales Tax are also under the consideration of Government. These proposals will be finalised shortly and announced through an Industrial Policy Resolution.

CINDERELLA IS AWAKE

The analysis given above will show that there is considerable potential for starting new industries in Orissa. The scope is so vast and public funds so limited and so much in demand for development of infra-structure, that private capital in adequate measure should flow in and take advantage of the potential for starting new industries in Orissa. The State Government follows a liberal policy for encouraging private industries and appeals to and invites all entrepreneurs to plan and start their industrial ventures in the different industrial belts and zones of Orissa. Orissa has been always regarded as the "Cinderella" of India with tremendous potentialities of industrial development. The Cinderella is now wide awake, ready to welcome the investor providing him with a golden opportunity that should not be missed.

DEVELOPMENT OF POSTAL SERVICES

MORE POST OFFICES FOR BACKWARD AREAS

Emphasis is being laid on opening more post offices in border areas and what are known to be "very backward" areas in the next few years. In the backward areas, the Posts & Telegraphs Department opens post offices even when they are not remunerative. The limit of loss per year per post office has been raised to Rs. 2,500. So far 2,096 post offices have been opened in "very backward" areas. It is proposed to open 500 post offices in such areas during the Fourth Five-Year plan. The total number of post offices to be added during the Plan period would be about 12,000 of which only about 2,500 will be in the urban areas.

Since independence, about 75,000 new post offices have been opened in the country bringing their number to more than 97,000. The average area served by a post office today is about 13 sq. miles and a population of about 4,500 as against 57 sq. miles and 16,000 persons, on the eve of independence. During the Third Five-Year Plan about 21,000 new post offices were opened.

There has been progress in the expansion of postal facilities and in the frequency of deliveries in the rural areas. Over 3,00,000 villages are now receiving daily delivery of dak. About 10 years ago their number was about 1,53,000. The number of runner lines, which have been mechanised during the last five years, is 4,957 covering more than 1,00,000 Kilometres.

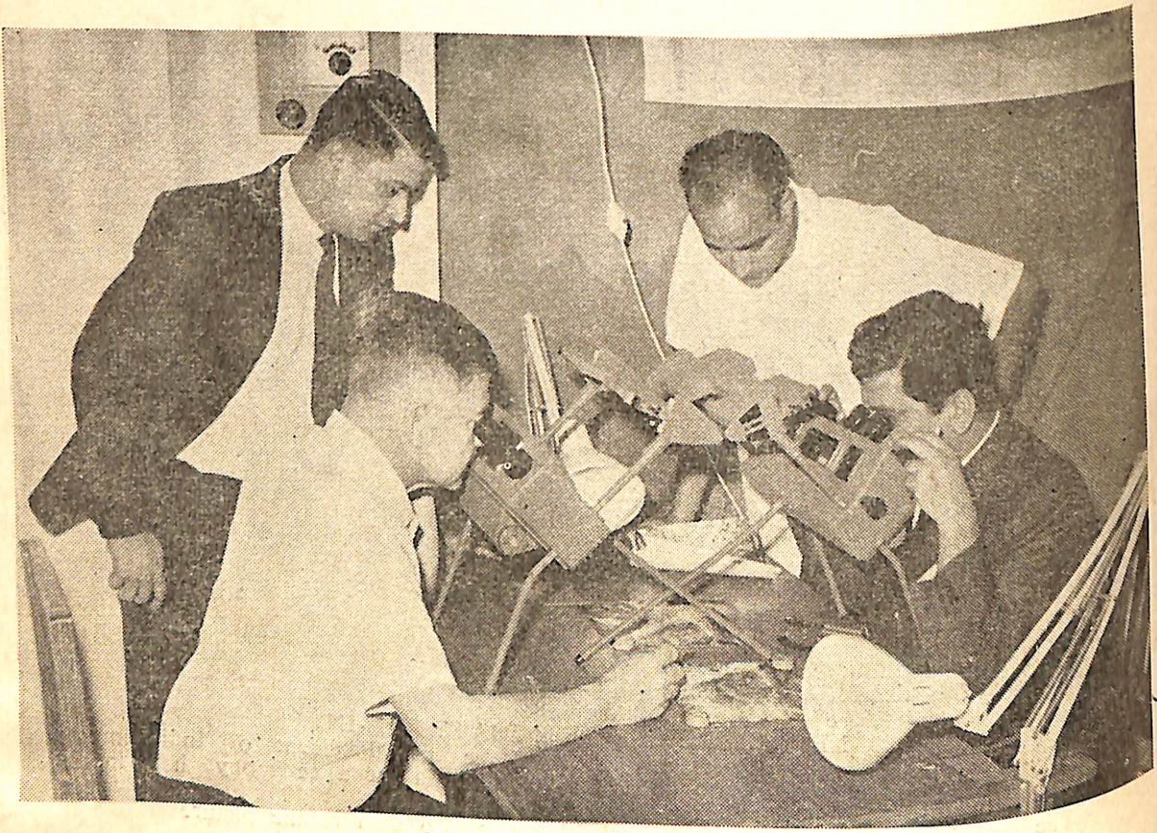
Minister for Fisheries, Shri Harihar Patel discussing with Press men at Kausalyaganga on May 23, 1967.

NEW PRESIDENT OF INDIA SWORN-IN

Dr. Zakir Husain taking the oath of office as the new President of India in the presence of Justice K. N. Wanchoo, Chief Justice of India at a ceremony held in the Central Hall of Parliament House on May 13, 1967. The outgoing President Dr. S. Radhakrishnan is also seen in the picture

RABINDRA JAYANTI CELEBRATION AT NEW CAPITAL

Cultural Affairs Minister Shri Nityananda Mahapatra delivered his address as the Chief Guest at Rabindra Mandap, Bhubaneswar on May 14, 1967, on the occasion of Rabindra Jayanti.



The Photo interpretation Institute has been set up at Dehradun with the assistance of the Netherland Government. The institute imparts training in the application of techniques of photo interpretation in the disciplines of geology, soil survey and forestry.

Photo shows—A Butch expert from the Netherlands at work on the scanning stereoscope imparting instructions to the Geologist trainees in photo interpretation.

MINERAL WEALTH OF ORISSA

For centuries, Orissa has been known for its culture, sculture and architecture. The temples of Bhubaneswar, Konark and Puri bear ample testimony to the grandiose achievements of the ancient people of Orissa. The existence of numerous iron beams at the Sun temple of Konark and Jagannath temple at Puri proves that the people of this land had mastered the techniques of ferrous metallurgy. According to V. Ball, Balasore is perhaps the first place in India where modern European method of iron production was practised. Gold washing was being done in almost all the rivers of the State. Diamond is known to have been worked in the Hirakud island around the year 1766.

DISCOVERY AND EXPLORATION

The earliest major mineral discovery in this State is that of coal in Talcher area in 1827. The discovery of the rich iron ore dedosits in Gurumahisani in Mayurbhanj district during 1903, which led to the establishment of the iron and steel works at Jamshedpur is reckoned as a landmark in the history of mineral exploration and industrial development in the country. The extensive ron and manganese ore deposits of Bonai-Keonjhar were brought to ght during the period 1922—1925. The Geological Survey of India commenced a programme of systematic survey from 1939. The arduous and unti-ring efforts of the officers of the G. S. I. and of the private geologists brought to light several important mineral deposits in the territory covered by the province of Orissa and the former feudatory States. Mention may be made in this connection, of the limestone deposits in Koraput iron ore deposits in Sukinda area of Cuttack district and the chromite deposits in Nuasahi area of Keonjhar district. A number of promising mineral occurrences were also discovered in the ex-State areas of Bolangir, Kalahandi and Gangpur. These include bauxite, graphite, manganese ore and limestone. The important mineral discoveries were confined to the then feudatory States. The merger of the feudatory States with the Orissa province during 1948-49 made Orissa the most important mineral bearing State in the country. Very little had been done till then in the field of systematic geological mapping, mineral exploration and assessment and a large part of the State lay unexplored. The State Government being aware of the enormous potentialities of mineral resources, created a Directorate in the year 1955, to expedite assessment of mineral resources of the State. Assessment of the reserves and grade of the iron ore deposits in Daiteri ; limestone deposits at Dungri in Sambalpur, Dublabera, Kiringsera in Sundargarh ; Umpavalle, Kondajodi, Kottameta areas in Koraput district ; bauxite in the plateaux of Kalahandi, Koraput and Bolangir districts ; vanadiferous magnetite in Mayurbhanj district are among the major investigations undertaken by the Directorate. In the field of exploration and assessment, besides Geological Survey of India and the State Directorate, other organisations like Indian Bureau of Mines, Atomic Mineral Division, N. C. D. C., Ltd., H. S., Ltd., M/s TISCO, Ltd., and the O. M. C., Ltd., have done very useful work which have helped Orissa to occupy an enviable position in the mineral map of India.

PRE-INDEPENDENCE PERIOD

Set against an era of glorious antiquity, Orissa, a State endowed with bountiful natural resources and abundant power potential, presents a dismal picture of progress. Until the dawn of independence, there was not a single industry worth the name. A paper mill, one sugar factory and a glass factory were all that Orissa had. Installed electric power was hardly a megawatt. Orissa lacked the basic transport and communication facilities. The Railways touched only the fringe of the State and the vast interior of the State was not easily accessible. Along the 650 Kms. long coastline, there was not a single port.

INDEPENDENCE AND AFTER

The decade embracing the second and third five-year plans is marked by rapid strides in the sphere of mineral and industrial development in Orissa. The pace was set up with commissioning of the Hirakud Dam Project with its installed capacity of 270· M. W. The first public sector steel plant at Rourkela went into production in the year 1959. Other mineral based industries which came up include the aluminium plant near Hirakud, ferro-manganese plant at Joda and Rayagada, cement factory at Rajgangpur, refractory plants at Belpahar, Rajgangpur, Latkata and Barang and the low shaft pig iron plant near Barbil. Only recently, a cement factory near Bargarh and a ferro-silicon plant at Theruvalle have been commissioned. The 250 M. W. thermal power plant near Talcher is on its way to completion.

The abundant hydel power potential has been harnessed to a great extent and the present installed power capacity is of the order 310 M. W. as against 16·3 M. W. at the beginning of the second five year plan. Besides, the 250 M. W. thermal power plant near Talcher, the 360 M. W. hydel power plant at Balimela is under construction.

The Railways completed several major projects, the most important being the line connecting Bailadila with Kottavalsa across the district of Koraput. The other links established are Sambalpur with Titilagarh and Rourkela (Bondamunda) with Dumaro. The completion of a road bridge across the river Mahanadi is another achievement in the history of development of transport and communication. The industrial belt in western Orissa is no longer cut off from the State capital. The portion of the National Highway in Orissa connecting Calcutta with Madras has been completed.

The long cherished need of having a port on the coast of Orissa was fulfilled with the inauguration of the country's deepest draft port at Paradeep during march, this year. Several ships carrying iron-ore have since left Paradeep.

In the sphere of mineral production phenomenal increase was recorded in the production of iron-ore, which increased from 2·19 million tonnes during 1958 to 6·93 million tonnes during 1965. Other minerals namely, lime-stone, dolomite, fire-clay also recorded continuous increase in production. The value of minerals produced in Orissa reached a figure of Rs. 13·4 crores as against Rs. 6·9 crores in 1958. The State's revenue from minerals went up from Rs. 37·36 lakhs during 1958-59 to Rs. 1·75 crores at the end of the 1965-66 financial year.

The progress achieved in the field of industrial and mineral development has been noteworthy especially when we consider the back-log of centuries. It's long way to go before Orissa becomes really industrially advanced. Only a small fraction of the bountiful mineral resources has been tapped so far. An attempt has been made in this article to present a comprehensive picture of the mineral resources of the State and the latent industrial possibilities.

MINERAL RESOURCES

Geological setting—(Orissa forms a part of the stable landmass of the Indian Peninsula which has not been affected by mountain-building forces since the pre-Cambrian time). The topographic features of Orissa reflect combined action of the processes of long continuous erosion, peneplanation and uplifts. The State is largely composed of rocks belonging to the Archaeans, the oldest rocks in the earth's crust. Rocks belonging to Cuddapah and Gondwana Systems make up the rest of the States' territory, leaving some area for recent alluvium and laterite.

IRON ORE

Orissa has abundant reserves of iron-ore, estimated at about 8,000 million tons. Distributed mainly in the districts of Keonjhar, Sundargarh, Cuttack and Mayurbhanj. The ore is mainly of hematite variety and the iron content varies from 55%to as much as 69%. These hematite deposits are associated with the banded ferruginous formations (B.H.Q. and B.H.J.) and ferruginous shales of the pre-Cambrian age.

The most imortant iron-ore deposits are found in the Bonai range running through Sundargarh and Keonjhar districts and include among others Khandadhar (Rajabasa), Barsua, Bichhakani, Malangtoli, Mankarnacha, Pirpokri, Banspani, Joda east, Thakurani, Bolani and Murgabera. The other important deposits are in Badampahar, Sulaipat and Gorumahisani in Mayurbhanj; Daiteri and Tomka in Cuttack; Candhamardan in Keonjhar and Hirapur hills in Koraput district. The average iron content in the ores of these deposits is around 63% Typical analyses of some ores are as follows:

(Constituents..)	Al_2O_3	SiO_2	P.	S.	FeO	Total Fe.
Daiteri	2 0	1·3	0·09	Trace	Negligible	61·50
Joda	0 8·4·2	0·6-2·3	0·09-0·15	—	—	60·68
Gorumahisani	3·33	2·21	0·08	—	—	63·62
Tomka	2·36	1·85	0·07	0·09	—	164·80
Banspani	1·28	2·05	0·05	0·005	—	64·5

Joda east mines of M/s.TISCO Ltd., Bolani mines of M/s. Bolani Ores (P.) Ltd., Barsua of M/s. Hindusthan Steel Ltd., are among the largest mechanised iron-ore mines of our country. Apart from meeting a major portion of our export commitment in iron-ore, Orissa supplies substantial proportion of this chief raw material to all the four steel plants, located in the eastern sector.

Recent investigations conducted by the State Directorate, I.B.M.,G.S.I. and the O.M.C. Ltd. have proved the existence of sizable deposits in Daiteri, Gandhamardan and Pirpokri Keonjhar in district and Sarkunda area in Sundargarh district. The reserves of these deposits have been estimated at over 200 million tonnes.

MANGANESE ORE

Orissa occupies the next place in order of importance after Maharastra and Madhya Pradesh although as producer of manganese ore, she has been leading quite often. The total reserves of manganese ore of all grades are estimated to be of the order of 25 million tonnes. Although metal-lurgical grade ore is found in good proportion chemical and battery grade ores are also found in several of the deposits.

Bonai-Keonjhar belt is one of the most important manganese ore producing regions of our country. The deposits occur in shales and phyllites associated with the banded iron formations of pre-Cambrian age. Several deposits are of lateritoid type. The ores of this region are characterised by low phosphorous content. The important deposits are found in Joda west, Bamebari, Banspani, Gurda, Siljora, Bhutura, Dengura etc. Manganese content of the ores varies from 30 to 51%.

The average range of composition is as follows:

Mn.	36·6—51·3%
Fe	6—14%
SiO	1·2—4·4%
Al_2O	1·6—4·5%
P.	0·08—0·12%

The other deposits are located near Kuttinga in Koraput, Nishikhal in Kalahandi : Champasar in Bolangir, Amsdegi-Ghoriajor in Sundargarh districts. The ores of Kalahandi, Koraput and Bolangir are slightly high in Phosphorus content. Deposits of manganese ore are also found in Dhenkanal, Ganjam and Phulban districts. Large reserves of low grad ores containing less than 30% Mn occur in Sundargarh and Keonjha districts. These ores, which usuall find their way to the dumps, ar now being produced in substantia quantities, following a demand from the steel mills.

Manganese ores of Orissa are highly valued in the export market. Bulk of the production from Orissa is exported.

A sizable portion of the ore produced in the State is utilised internally by the steel plants in the eastern sector and the two ferromanganese plants located at Joda and Rayagada.

CHROMITE

Orissa possesses the richest deposits of chromite in the country. Besides being the leading producer, Orissa accounts for more than 80% of all India production of chromite. Ores of three grades, namely metallurgical. chemical and refractory occur in the State.

The important deposits of chromite are located near Boula and Nuasahi in Keonjhar district; Saruabil, Sukrangi, Gurjang, Bhimtangar, Kalrangi in Cuttack district; Maruabil, Birasal and Kathpal in Dhenkanal district. Ore occurs in the form of bands, lenses and disseminations in altered peridotites and serpentinites. The reserves of chromite in Cuttack and Dhenkanal districts are estimated to be of the order of 3·3 million tonnes on the basis of recent investigations conducted by the Geological Survey of India. The total probable reserves of chromite of all grades in Orissa are estimated to be of the order of 5 million tonnes. Analytical results of some representative samples of chromite from Nuasahi and Sukinda areas are given below:

(Constitueuts)	Cr_2O_3	FeO	SiO_3	Al_2O_3	Cr: Fe
Nuasahi	52	12-56·64	16·67-18.12 6·18	1·53-5.24 7·84	3:1
Kathpal	54·74	14·73	-	—	3·3:1
Bhimtangar	55·65	11·10	—	—	3·4:1

The medium and low grade ores are consumed internally for the manufacture of of chemicals and refractories, while most of the metallurgical grade chromite are exported. Investigations conducted by the G. S. I. and I. B. M. have indicated the presence of nickel and cobalt associated with the chromiferous rocks of Sukinda (Cuttack) area.

LIMESTONE AND DOLOMITE

Extensive deposits of limestone and dolomite occur in the districts of Sundargarh, Sambalpur and Koraput, confined to the Cuddapahs and the Dharwar Systems. Orissa in one of the leading producers of limestone in the country and Sundargarh district is credited with largest production. Sundargarh district on the other hand, accounts for more than 50% of all India production of dolmite.

The limestone and dolomite deposits of Birmitrapur are quite well known. The reserves of limestone and dolomite of this area as estimated by G. S. I. are of the order of 275 million tons and 252 milion tons respectively. These are being worked for about half a century and constitute the principal source of flux-grade limestone and dolomite in the country. The other important deposits of lime stone in Sundargarh district are at

Hatibari. Purnapani, Gatitangar, Dublabera and Lanjiberna. The reserves of these and other deposits of Sundargarh district are estimated to be of the order of 35 million tons. Dolomite occurs in Dublabera, Kinjirma and Lifripara. In Sambalpur district, extensive reserves of cement grade limestone, estimated to be of the order of 38 million tons have been proved in Dungi area by the State Directorate of Mines and later by the O.M.C. Ltd. Extensive deposits of limestone have been proved in Umpavalli-Tummiguda and Kottameta-Nandiveda areas in Koraput district. As a result of detailed investigations conducted by the Directorate of Mines, reserves of about 40 million tons and 60 million tons have been proved in these areas respectively. Dolomitic limestones are found around Gupteswar, Siriveda, Talur, Godaghati, Kondajodi and Dumajodi in Koraput district. The total reserves of these deposits are estimated to be of the order of 39 million tons.

Recent investigations have brought to light sizable deposits of limestone in Kiringsera, Litibera, Purkapali, Kutra, Telaghana, Bimta, Huaram and Khairtola areas of Sundargarh district. The thickness of the limestone horizon at some of these places has been proved to be of the order of 60 metres. These limestones will be suitable for use in cement industry.

Deposits of Calc-tufa (travertine limestone) have been located near Pokdoi, Madhupur, Samaju jhor and at several other places in Phulbani district the reserves of the individual occurrences are however small.

Some of the typical analysis of limestone and dolomite samples from the various deposits are as follows :

LIMESTONE

(%Constituents)		SiO_2	Al_2O_3	FeO	CaO	MgO	L.OI.	Total Insol
Birmitrapur								
B. F. Grade	..	7·50	2·13	1·11	45·79	4·23	39·00	9·34
O. H. Grade	..	4·10	1·42	0·68	48·89	3·69	41·18	5·68
Dungri	..	6·40	..	.	51·60	0·22	..	..
Kottameta	..	5·60	..	..	52·00	0·72	40·6	..
Dolomite.								
Birmitrapur								
B. F. Grade	..	5·06	1·40	0·92	29·92	19·21	43·20	6·98

COAL

Orissa possesses enormous reserves of non-coking coal in Talcher area in Dhenkanal and Rampur area in Sambalpur district. Coal was known to occur in Talcher as early as 1827. Coal bearing Barakars extend over an area of about 500 sq. kms. around Talcher and the reserves proved are estimated to be the order of 477·10 million tonnes in an area of 23·75 sq. kms. Coal produced from this area is of Grade I quality and is highly suitable for use in the locomotives, boilers and for thermal power generation. Recent tests conducted by the I. D. C. of Orissa Ltd. have established that coal of the bottom section of basal seam, which is the best quality coal available in this area, can be utilised in the low shaft furnace for manufacture of pig iron. A typical analysis of bottom seam coal is as follows..

ANALYSIS AIR DRIED BASIS

Moisture	.. 7 — 9%
Ash	.. 10 — 16%
Volatile matter	.. 33 — 35%
Fixed Carbon	.. 42 — 48%
Calorific value	
(B. Th. U/lb.)	.. 10,500 :—12,00

At present, there are three working collieries in this area, namely, Dera, Deulbera and South Balanda, of which the last one is open-cast. All these belong to the N. C. D. C. Ltd.

Investigations to prove reserves of coal in this area are being conducted by the State Directorate, N. C. D. C. Ltd. and the G. S. I. On the basis of information gathered from various sources, probable reserves of coal are estimated at over 1,000 million tonnes.

In the Ib River (Rampur-Hingir) coal field, there are three collieries, namely, Hingir-Rampur, Ib river and Orient colliery. In all these collieries, the bottom section of the Rampur seam, which has been classed as Grade I, is being worked. The total reserves in this field are estimated to be of the order of 720 million tons. A typical analysis of coal from this field is given here.

Moisture	.. 4 — 12%
Ash	.. 13 — 22%
Volatile matter	About 30%
Fixed Carbon	45 — 50%
Cal. Value.	
About	10,500 B. Th. U/Ib.

Occurrence of coal is also reported from Gochhapara and Katrangia in Phulbani and Naraj in Cuttack district. These however may not prove to be of any importance in the immediate future.

BAUXITE

Several of the high plateaux of Koraput, Kalahandi, Bolangir and Sambalpur districts contain bauxite, the principal ore of aluminium. Investigations to locate and assess the reserves of bauxite, occurring in the scattered plateaux in these districts are being undertaken by the State is of Grade I quality and is highly suitable for use in the locomotives, boilers and for thermal power generation. Recent tests conducted by the I. D. C. of Orissa Ltd. have established that coal of the bottom section of basal seam, which is the best quality coal available in this area, can be utilised in the low shaft furnace for manufacture of pig iron. A typical analysis of bottom seam coal is as follows. .

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Directorate. Important deposits are located at Chandgiri, Baphlimali, Kathakhal, Pasangmali, Sijimali, Kisanmali, Sasbahumali in Koraput; Khariar and Karlapat in Kalahandi and Gandhmardan plateau on the border of Bolangir and Sambalpur districts. The total reserves, proved so far are estimated to be of the order of 2·42 million tonnes, with alumina content in the ore being 48% and above. The investigations are still in progress and it is anticipated that the reserves would be further increased. The break-up of the reserves, proved so far, is as follows :

Koraput	1·12 million tonnes.
Kalahandi	0·70 million tonnes.
Gandhmardan plateau. (Bolangir-Sambalpur).	0·60 million tonnes.

Typical analysis of bauxite from some of these deposits are follows :

(%Constituents).	..	Al_2O_3	SiO_2	TiO_2	Fe_2O_3	Combined water.
Chandgiri	..	56·80	2·56	2·42	8·98	27·20
Gandhamardan	..	52·20	3·42	1·36	18·62	23·70
Karlapat	..	52·53	3·20	4·20	7·56	27·24

CHINA-CLAY

China-clay occurs as huge pockets in granites and gneisses, mostly decomposed, under a thin capping of laterite, around Karanjia and Joshipur in Mayurbhanj district. Some of the important locations are Kuruma Chanchbani, Dumuria and Jamkesar. China-clay available from these deposits are both plastic and non-plastic and are found to be suitable for use in paper, rubber and textile industries besides porcelain, potteries and sanitary wares. Clay also occurs near Kakuda in Sundargarh, Lukopali in Kalahandi and at several other places in the State. Recent investigations have proved sizable deposits of clay in Sorispadar area of Koraput district. The thickness of the clay bed has been found to be of the order of 8—10 metres. Being located close to the Bailadila-Kottavalsa Rly. line, this deposit will prove to be quite promising.

FIRE-CLAY

Some of the riches deposits of fire-clay in our country are found in Belpahar area of Sambalpur district. These occur as well-defined beds in the Gondwana fields in Sambalpur as well as in Sundargarh, Dhenkanal, Cuttack and Puri districts. In this mineral too, Orissa is the leading producer.

The important deposits are located at Jurbagha-Darlipali, Kandelmunda-Kudopali-Lajkuria, Gamhadora, Rampur Talabira, Khola, Khinda etc. in Sambalpur ; Kiripsira, Gopalpur, Rattansara, Siarimal, Bankibahal in Sundargarh; Jagannathprasad in Puri; Chhendipada, Patrapada, Karanda, Telsinga , Gopalprasad in Dhenkanal and Naraj in Cuttack district. Recent investigations have indicated the possibility of occurrence of sizable deposits of fire-clay in Kaniah area of Dhenkanal, and in several other places in Cuttack and Puri districts.

The entire production of fire-clay in the State is consumed as fire-bricks in the steel, cement and other industries and in the manufacture of heavy sanitary wares.

GRAPHITE

Graphite, for its use as a moderator in atomic reactors, is considered as a strategic mineral. Other important uses of this mineral are for manufacture of crucibles, retorts, lubricants, foundry facings, etc. Import of graphite is going up every year, consistent with the growth in demand for graphite products in the country.

Graphite occurrences in Orissa are confined to Bolangir, Kalahandi, Sambalpur, Phulbani, Koraput and Dhenkanal districts. It occurs as pockets and veins in the khondalites, granite gneisses and schists. Workable concentrations are found in Brahmani, Dharuakhaman, Matupali, Tentulikhunti, Bakbahal etc., in Bolangir; Kamalpur, Dandatopa, Tileswar in Dhenkal; Singjharan, Densurgi, Khetupara in Kalahandi; Majjikelam, Kariguda in Koraput; Tumudibandh in Phulbani and Sargipali in Sambalpur district. Several of these deposits are being worked at present and the prospect of locating further occurrences in the districts mentioned above is very bright.

The carbon content of these graphites varies from 40 to as much as 70%. These are further beneficiated to 70—90% carbon in the plants located at Titilagarh and Patnagarh in Bolangir district.

VANADIFEROUS MAGNETITE

Extensive deposits of vanadiferous and titaniferous magnetite occur in several places in Mayurbhanj district. These are associated with gabbro-anorthosite suit of rocks. The important deposits are at Kumardhubi, Betjharan and Hatichar in Mayurbhanj; Boula range in Keonjhar; Betai and Rangamatia in Balasore district. Detailed investigations conducted by the State Directorate have indicated sufficient reserves in Mayurbhanj district for the establishment of a ferro-vanadium and vanadium pig iron plant. The V_2O_5 content in the magnetites varies from 0·5 to 1·5% and TiO_2 from 4 to 10%. Of the deposits mentioned above, Kumardhubi and Hatichar occurrences are particularly promising both from the point of view of V_2O_5 content (which is on average 1%) and rserves.

QUARTZITE

Quartzites (containing more than 97% SiO_2) suitable for manufacture of glass, ferrosilicon and other ferro-alloys occur at Souri, Balimundli, Kathsirsi, Panijia, Balidiha bandh in Mayurbhanj; hillocks north of Daiteri-Tamka range in Keonjhar and Dalapur in Koraput district. Detailed investigations have been conducted in all these areas by the State Directorate, and the total reserves have been estimated at over 1·50 million tonnes.

Other minerals that occur in this State include kyanite, mica, soapstone, asbestos, galena, beryl, monazite, ilmenite and garnet. Of these, the last named three minerals occur in the beach sands of Gopalpur and Puri Coast.

MINERAL PRODUCTION

The increasing trend in production of most of the minerals was continued during 1965 and the value of minerals produced in Orissa reached the figure of Rs. 134·2 million. The corresponding figure for India is Rs. 2,329·9 million. Coal accouted for 71% of the total value of minerals produced in the country.

The trend in the output of minerals and ores in Orissa is given in the following table:

TREND OF MINERAL PRODUCTION IN ORISSA

(Production figures are in metric tons)

	1961	1964	1965
Iron ore	4,695,958 (12,309,809)	5,543,128	6,933,758 (16,900,977*)
Manganese	393,049 (1,230,024)	393,475	453,954 (1,503,578*)
Chromite	39,099 (48,785)	28,114	56,804 (59,672)
Limestone	2,192,514 (14,566,952)	2,232,185	2,441,909 (19,855,088)
Dolomite	484,886 (722,190)	304,533	426,612 (957,583)
Coal ..	972,000 (56,065,000)	1,091,691	1,202,692 (67,161,000)
China-clay	28,705 (383,463)	14,143	12,700 (88,815)
Fire-clay..	103,624 (282,983)	78,814	77,727 (425,000)
Graphite..	1,078 (N. A.)	1,745	2,454 (N. A.)

Figures within brackets indicate all India production

N. A.—Not available

*Excluding production from the Union territory of Goa

Other minerals e. g., asbestos, mica, quartzite and soapstone are produced in small quantities.

FUTURE OUTLOOK ON MINERAL DEVELOPMENT

Large-scale industrialisation envisaged in our five year plan not only calls for rapid mineral development but also necessitates speedy development in the sphere of transport and communication, of port facilities and power potential. In the overall analysis, the benefit that accrues from such development is not confined to this State in particular but extends to the entire country.

Increasing activities in the sphere of mineral exploration and production have given rise to chain of mineral-based industries in this State during the last few years and several of them have since been expanded and modernised. With abundant mineral resources and power available, there is sufficient scope for increased exploitation of mineral resources for internal consumption in existing and new industries and for export.

IRON & STEEL INDUSTRY

The iron and manganese ore production of the State are shared among all the steel plants located in the eastern sector and export market. The entire production of flux-grade limestone and dolomite from Sundargarh district is utilised to meet the needs of the steel plants. The proposed steel plant at Bokaro will draw most of its requirements of the essential raw materials from Orissa's reserves. The probable reserves of iron ore in Orissa being of the order of several thousand million tons, one can confidently predict that Orissa will be able to meet the requirements of all the steel plants as well as the future ones for about a century leaving sufficient surplus for export. Against this background may be considered the proposal of locating a major iron and steel plant in the Nayagarh area in Keonjhar district, which enjoys all the facilities required for such a major industry, namely, land, water, power and raw materials. Perhaps no other location in the country is so favourably placed.

Viewed from export point of view, Nayagarh-Banspani region needs to be connected with Paradeep port by railway for sustaining long term export of iron ore. Paradeep is nearer than any other port, existingor under construction. This will mean that the railway line to connect Daiteri with Paradeep for which there is a strong claim, requires to be extended a little further. Connecting Talcher with Dumaro (Bondamunda-Dumaro link) is a long felt need. This will bring the rich mineralised belt of Sundargarh and the industrial units of western Orissa much nearer to the coastal districts besides providing direct link with Paradeep port. This is a vital railway link for the State which needs immediate attention.

FERRO-ALLOYS

The largest deposits of chromite in the country occur in Sukinda area of Cuttack district. A sizable proportion of the 3 million tonnes reserve is of metallurgical grade. Sufficient quantities of quartzite, containing over 97% SiO_2 are available in the area. Power will be available from the

Talcher grid. Based on these considerations, the I. D. C. of Orissa Ltd. have gone ahead with the establishment of a low carbon ferro-chrome plant near Jajpur Road. The completion of this project should be expedited at all costs.

The large reserves of vanadiferous magnetite of Mayurbhanj district hold out sufficient promise for setting up of an integrated ferrovanadium and vandadium pig iron plant in that region. The factor that stood as a deterrent for such a venture is power. Now that power is available in plenty and necessary reserves with proper vanadium base have been proved, the project brooks no further delay. The I. D. C. of Orissa Ltd. have already taken initiative in the matter, which should be encouraged.

COAL-BASED INDUSTRIES

The I. D. C. of Orissa Ltd. have undertaken exhaustive investigations and tests regarding the establishment of a coal-based industrial complex in Talcher area, basing on the enormous reserves of coal available in that area. This will include a pig iron plant of capacity of 1·48 lakh tonnes fertilizers and chemicals. The feasibility and economics of this project have been based on sound considerations. Utmost priority should therefore be given for the execution of this project which will yield 1·50 lakh tonnes of fertilizers which we need so badly today.

ALUMINIUM PLANT

About 2 million tonnes of bauxite of metallurgical grade have been proved to occur in the plateaux of Kalahandi and Koraput. The only other consideration for production of aluminium is cheap electric power. The Balimela project with the installed capacity of 360 M. W. provides sufficient ground for locating an aluminium smelter in the region; a possibility, which should be harnessed.

CEMENT

In the district of Koraput, extensive reserves of limestone have been proved as a result of investigations conducted in recent years. Koraput which was hitherto inaccessible is now served by a railway traversing the entire length of the district. With Balimela power in the background, the limestone deposits whose total reserves would easily exceed 100 million tons can very easily sustain a large capacity cement plant in the district.

Besides the above, abundant raw materials are available for industries, such as, glass, ceramics, potteries, paints, ferro-alloys, electrolytic manganese, etc.

If Orissa has to develop her economy, she must embark upon the task of exploiting her natural resources in a planned and systematic manner. A beginning has been made in that direction. The projects outlined here are highly attractive and feasible propositions and handsome return is assured for any capital and enterprise, whether privately sponsored or Government owned.

“THERE'S SCOPE FOR BUSINESS IN INDIA'S ORISSA STATE”

By

By D. R. McPHEE

Australian Trade Commissioner, Calcutta

The above article has been written by the Australian Trade Commissioner, Calcutta Mr. D. R. McPhee in their widly circulated journal “ Overseas Trading ” in its Volume 18, No. 21. They were supplied some Photographs by the Government of Orissa and they have fully utilised those pictures in the article mentioned above. The full steps of the article is given below. There has been certain changes regarding estimated expenditure on the Fourth Plan which has undergone certain changes in the meantime.

“ The State of Orissa is in the north-east section of the Indian peninsula and extends over an area of 60,000 square miles. It is a maritime state with a coast line of almost 250 miles along the Bay of Bengal, and it has a common boundary with West Bengal in the north-east, Bihar in the north, Madhya Pradesh in the west and Andhra Pradesh in the south.”

“ Orissa is an extensive plateau which slopes into the coastal plain along the Bay of Bengal. The river Mahanadi, flowing west to east throug the plateau, cuts in into two defined parts—the northern part is an extension of the Chotanagpur plateau, and the southern part is covered by hill ranges known as the Eastern Ghats. ”

“ According to the 1961 census, Orissa then had a population of almost 18 million people with a density of 292 to the square mile. In composition, the population is different from those in most other Indian states in that it has a relatively large component of tribal people. About 96 per cent of the population of Orissa live in rural areas and it is estimated that almost 70 per cent of the working population are engaged in agriculture.”

Agriculture and mining are the most important economic activities in the state, judged both by the volume of employment and the value of output. More than 64 per cent of the total cropped area is devoted to rice production.”

“ Other crops inlcude wheat, millets and other cereals as well as cash crops such as cotton, oil seeds, sugarcane and jute.”

“ Orissa is abundant in mineral resources compared with other mineral-rich regions in the country. Significant quantities of minerals now produced in the state are iron ore, manganese ore, limestone, dolomite, coal, chromite, china clay, fire clay and graphite as well as kyanite.’

INDUSTRIAL DEVELOPMENT

" Orissa offers vast scope for industrial development for which both the Union and State Governments are engaged in an ambitious programme. Some of the major industries already established in Orissa are producing iron and steel, ferroalloys, cotton textiles, cement, pottery. refractories and ceramics, aluminium and paper."

FOURTH FIVE-YEAR PLAN

" The Fourth Plan (1966-71) for Orissa envisages an estimated expenditure of Rs. 450,00,00,000, compared with Rs. 225,00,00,000 for the Third Plan. (All about Rs. 8·47.)"

" Tentative allocations for the major sectors during the Fourth Plan are : agriculture Rs. 33,50,00,000; animal husbandry and dairying Rs. 15,00,00,000; community development Rs. 16,50,00,000; irrigation Rs. 62,00,00,000; power Rs. 63,00,00,000; large and medium industries Rs. 64,00,00,000; mineral development Rs. 8,00,00,000; Transport and communications Rs. 28,00,00,000; education and social services Rs. 64,00,00,000; and miscellaneous Rs. 96,00,00,000."

" In the industrial field, there are 18 projects in the Fourth Plan. Eight are mineral-based, three relate to cement, five will be engineering, and two chemical and other industries. Also, the establishment and expansion of a number of small-scale industries are planned."

TRADE PROSPECTS

" Orissa's industrialists and importing houses are interested in Australian products and there is scope to increase exports to the State. Items for which inquiries have been received include".

" Iron and steel (G. P. sheets, tinplate, tool and alloy steel, etc., high speed steel); battery parts and components, fibre glass sheets and mats, machinery for manufacture of batteries, trailers, books and other publications, various chemical items, ball and roller bearings, spraying equipments, scientific instruments, asbestos millboards, welding equipment, fluorspar, machine tools, pigments and dyestuffs, heading elements, laboratory equipment, raw materials for the paint industry ".

TENDERS

" A major portion of purchases by the Orissa Government is usually made through the tender system, details of which are regularly forwarded to the Department of Trade and Industry in Australia".

" Products for which global tenderers are likely to be invited in the near future include mining equipment, earthmoving equipment, heavy trailers large transformers, circuit breakers mobile cranes, generating plants, lightning arrestors and various steel items".

INDUSTRIAL COLLABORATION

"Opportunities exist for setting up industries in collaboration with Australian manufacturers, particularly in the fields of minerals, cement, chemicals and engineering".

" Details of Orissa firms interested in buying from Australia may be obtained from regional offices of the Department of Trade and Industry or by writing direct to the Australian Government Trade Commissioner, Calcutta."

କୃଷିର ଚାବିକାଠି
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ଜଳ ଯୋଗାଣର
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କୁପର ପାଣି ପମ୍ପ

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ତିନିକୋଣିଆ ବଗିଚା, କଟକ-୧

O.A.A

BARABATI RAFFLE

(Authorised by the Government of Orissa)

In aid of **THE ORISSA OLYMPIC ASSOCIATION, CUTTACK**
THE INDIAN RED CROSS SOCIETY, ORISSA BRANCH

2½% of the net profit to go to THE NATIONAL DEFENCE FUND

Some of our contributions so far :—

	Rs.
1. To National Defence Fund (Through the State Branches of Andhra, Assam, Delhi, Madras, Mysore, Orissa, Pondicherry, Punjab, Uttar-Pradesh and West Bengal).	1,71,285
2. To the Prime Minister's Fund ..	50,000
3. To the Nehru Memorial Fund ..	22,500
4. In aid of Orissa Drought affected people through Orissa Chief Minister's Relief Fund, Bharat Sevak Samaj and Orissa Relief Committee.	40,000
5. To the Bihar Drought Relief Fund through the Chief Minister of Orissa.	20,000
6. Donation in aid of victims of Pakistani Air Raids through the Chief Ministers of Rajasthan, Punjab and Jammu & Kashmir.	15,000
7. To the Chief Minister's Relief Funds of the States of Assam, Jammu, & Kashmir, Madras, Mysore, West Bengal etc. etc.	40,000

HELP US TO HELP SIMILAR OTHER NOBLE AND HUMANITARIAN CAUSES

By purchasing a ticket for Re. 1 and at the same time taking your chance to win the coveted.

GUARANTED FIRST PRIZE OF Rs. 1,00,000

Our next Draw **23-7-1967**

For details write to—

Honorary Secretary
Barabati Raffle Committee
Cuttack-5

NATIONAL AWARDS FOR ORISSA HANDICRAFTS

ORISSA'S handicrafts are as old as the land and have developed arround a tradition that goes back over the centuries. Most of the designs, forms and colours have evolved slowly through the disciplined efforts of craftsmen generation after generation. These handicrafts not only reflect the refined taste of their makers, but also testify to the love of the people of Orissa for things of beauty.

The handicrafts of Orissa thrived through royal patronage and their popularity amongst the masses. The millions of piligrims who visit the holy shrines of Puri, Bhubaneswar, Konark from different parts of the country have also greatly contributed to the growth of this industry, who take back with them toys, incons, paintings, textiles, stone and Metal ware as momentoes of their visit.

During the British regime, the handicrafts of Orissa were in a moribuned state and survived only because of their ritualistic value. Since independence, all out efforts are being made to revitilise the traditional handicrafts by improving the production technique and designs.

Steps have been taken to encourage the craftsmen by supplying new designs to them and offering marketing facilities to their products.

National Award—The All India Handicraft Board has introduced a scheme of giving National Awards to craftsmen of outstanding merit since 1965 with a view to encourage and perpetuate the traditional crafts of India.

Two Craftsmen of Orissa namely, Shri Jagannath Mohapatra and Shri Artatrana Mohapatra of Puri district had the distinction of receiving these awards in 1965 for Patta painting and Solapith work respectively.

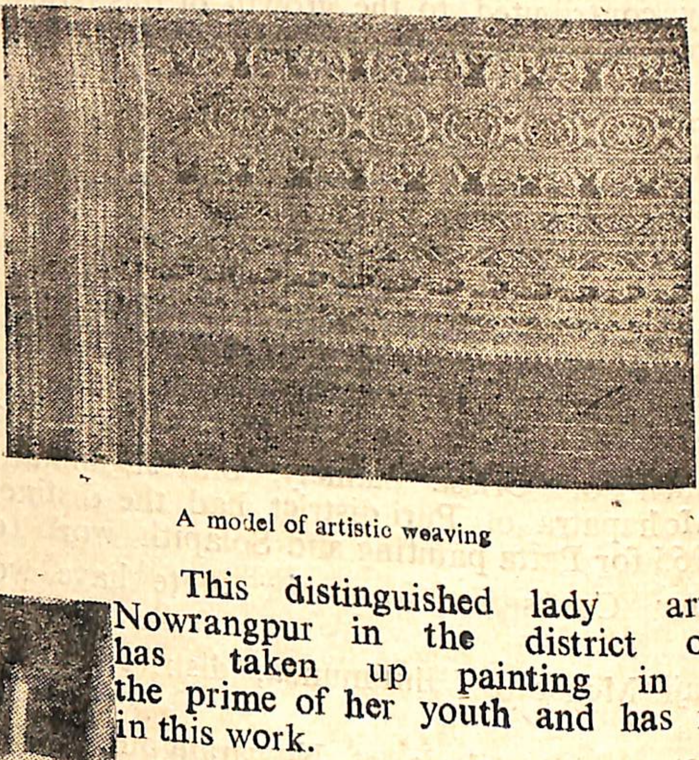
In 1967, four Craftsmen from our State have won these awards. They are :—

1. Shri Babaji Meher of Jhilimunda, district Sambalpur for artistic weaving.
2. Shrimati Nishamani Behera of Nowarangpur, district Koraput for lacquer painting.
3. Shri Harihar Maharana of Puri town for soft stone curving
4. Shri Benudhar Mohapatra of Raghurajpur, district Puri for Patta painting.

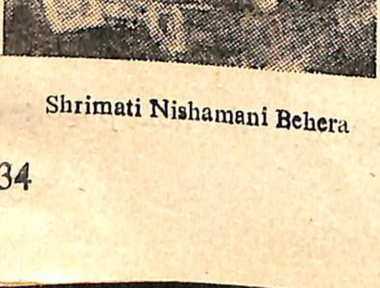
A brief profile of these distinguished craftsmen is given in the next page. :—

Shri Babaji Meher

Shri Meher hails from a weaver family of village Jhulimunda in Sambalpur district. The Sambalpuri handloom textiles have won world-wide reputation for their artistic design, texture and combination of colours. Shri Meher who is 38 years old, has followed his family trade from a very young age and has specialised in weaving " Bichitrapuri Sarees ", a bridal custume used since very long past. Shri Meher has added a little modernity to this variety of custume so as to make it popular with re-modern test. He has succeeded in it. Shri Meher is an active member of the Sambalpuri Bastralaya Co-operative Society of Bargarh. He has developed a number of new items and has made substantial contribution towards the development of artistic weaving.



A model of artistic weaving



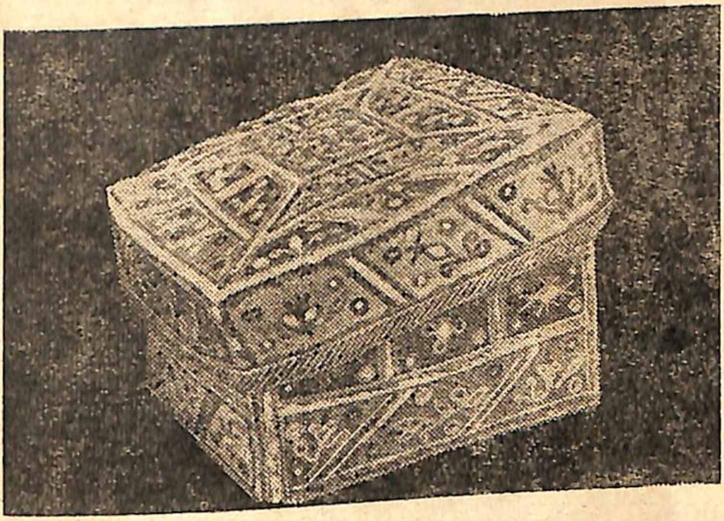
Shrimati Nishamani Behera

This distinguished lady artist hails from Nowrangpur in the district of Koraput. She has taken up painting in Lacquer since the prime of her youth and has reached perfection in this work.

Thirty-nine years old Nisamani forgets everything when her soft brush moves on caskets made of bamboo, painting fish, flower and animal motifs in lacquer giving them lively shapes and colour.

Her work has found a place in a number of museums, emporia and exibitions at home and abroad. The Shellac Export Promotion Council of India exhibited her lacquer boxes in the exhibition organised by it. Her work won unqualified appreciations from all quarters.

Shrimati Behera does not only derive pleasure in doing the work herself, but also takes great pleasure in teaching her arts to others. A number of youngmen and women have learnt her skill and some of them also have been doing it quite nicely.

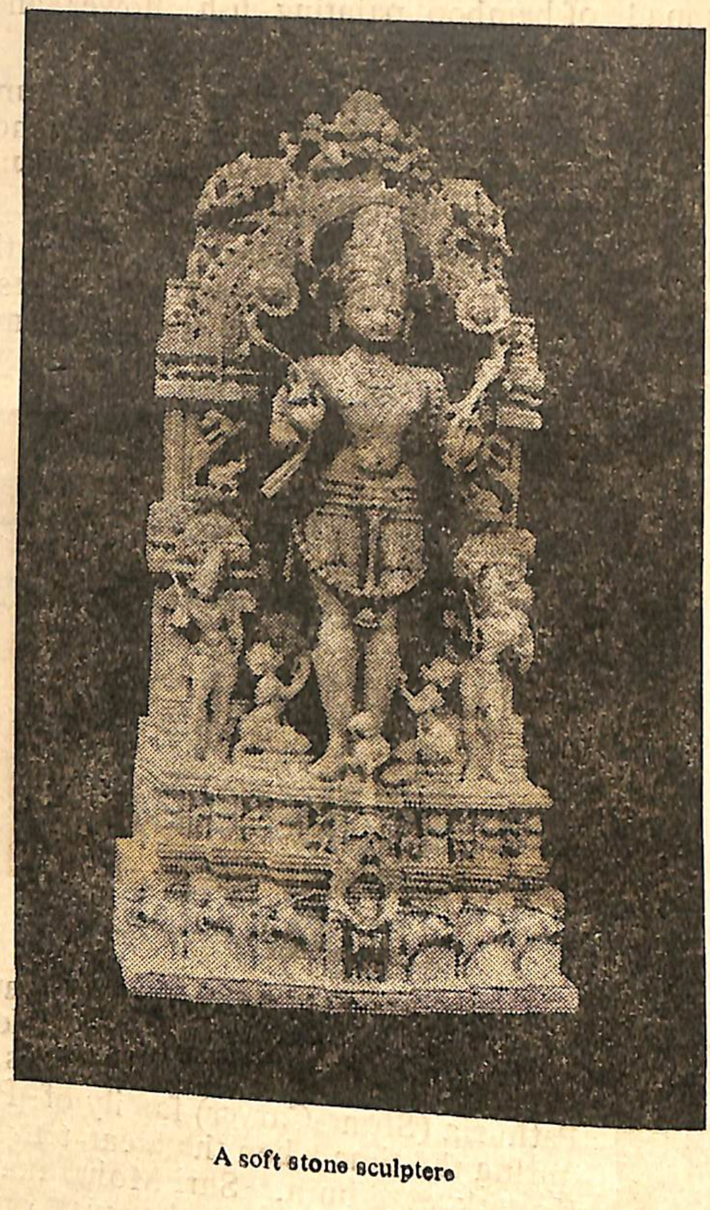


A Lacquer Box

Shri Harihar Moharana

Shri Harihar Moharana of Pathuria. Sahi Puri Town, is a youngman of 28. He has specialised in carving in soft stone. He belongs to the traditiona Pathuria (Stone-Carver) family of Puri, who thrived during the time when the great temples of Puri and Konark were built. Shri Moharana took up this art from his father when he was only ten. Despite various odds he has been sticking to this profession with devotion and has reached a stage when his talents have got recognition beyond Orissa. The soft stone sculpture made by him are quite comparable to the traditional sculpture of Orissa found on the walls of the temples of Bhubaneswar and Konarks.

Shri Moharana has also trained up a number of younger of his community same of whom have shown keen interest in this work.

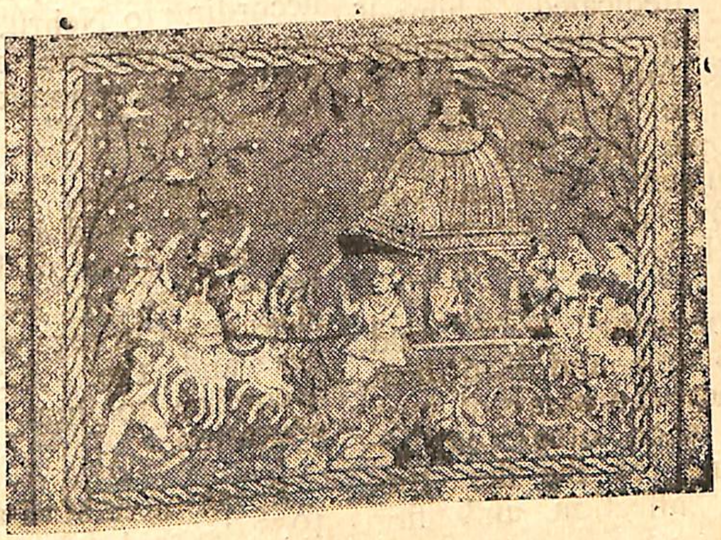


A soft stone sculptere

Shri Benudhar Mohapatra

Shri Benudhar Mohapatra, Master Craftsman in Pattapainting hails from the village Raghurajpur of Puri district. He was brought up in the traditions of his craft by his maternal grandfather and worked under the guidance of Shri Jagannath Mohapatra, who won the national award for Pattapainting in 1965.

Shri Mohapatra is a youngman in his thirties and has over come many a huddle to establish himself as a master craftsman. His works attracted attention of the Calcutta Design Centre and he was encouraged in his work. Presently Shri Mohapatra works as an Instructor at the Design and Training Centre at Bhubaneswar for training other Craftsmen in the Traditional art of Pattapainting.



NEHRU—BUILDER OF MODERN INDIA

(From a Special Correspondent)

It could be said that it was Jawaharlal Nehru who gave India a purposive future.

Speaking movingly on that historic day in August, 1947, when he took the oath of office, he said: "A moment comes which comes but rarely in history, when we step out from the old to the new, when an age ends and when the soul of a nation, long suppressed, finds utterance.

"It is fitting that at this solemn moment we take the pledge of dedication to the service of India and her people and to the still larger cause of humanity."

Stepping out from the old to the new was, indeed, a great task, yet Nehru dedicated himself wholeheartedly to the seemingly impossible task for, as he said, in another context, he "loved India and the Indian people and they in their turn were indulgent to him and gave him of their love most abundantly and extravagantly".

On another occasion Nehru said, "I knew my people and liked them. My eyes held these thousands of eyes. We looked at each other, not as strangers meeting for the first time but with love, affection and firm recognition".

It was Nehru's fervent love for his people that made him dream and strive for a society where, to quote his words, "every citizen has an equal place and full opportunity of growth and service, where present day inequalities in wealth and status have ceased to be, where our vital impulses are directed to creative and co-operative endeavour".

Nehru made India a state where "communalism, separatism, isolation, untouchability, bigotry and exploitation of man by man have no place, and while religion is free, it is not allowed to interfere with the political and economic aspects of a nation's life".

"The real progress of the country", according to Nehru, "meant progress not only on the political plane, not only on the economic plane, but also on the social plane".

It was also his firm conviction that there could be no real progress if a large chunk of humanity, formed by women, are cut off and kept in a class apart in regard to social privileges and the like. The remedy, according to him, lay in women's education.

Speaking at Madras on January 22, 1955, he said, "It may be possible to, neglect men's but it is not possible or desirable to neglect women's education. The reasons are obvious. If you educate the women, probably men also will be affected and in any event children will be thereby affected."

ARAAM HARAAM HAI

To build up a purposive future for India, Nehru exhorted people to action. He urged them to develop self-confidence and a feeling of self-reliance.

Speaking at a meeting on October 13, 1954, he said, "I want work and work and work. I want achievement. I want men who work as crusaders"

Nehru always felt idleness was a crime.

Then, he undertook the task of building a new India through comprehensive planning. He was unequivocal on the paramount need to develop and enrich the entire country as a whole so that India's people, in all their variety, might benefit from the fruits of planned economic growth.

Addressing the National Development Council on the First Five-year Plan, he observed: "It has made the whole country planning conscious. It has made people to think of this country as a whole......We often go off at a tangent on grounds of provincialism, communalism, religion or caste. We have no emotional awareness of the unity of the country. Planning will help us in having an emotional awareness of our problems in villages or districts or even provinces in their larger context.

Nehru reminded his countrymen: "The main thing we have to keep in mind is the emotional integration of India. We must guard against being swept away by momentary passion, whether it is religion misapplied to politics or communalism or provincialism or casteism.

"We have to build up this great country into a mighty nation, mighty not in the ordinary sense of the word, that is, having great armies and all that, but mighty in thought, mighty in action, mighty in culture and mighty in its peaceful service of humanity".

◆

WHAT NEHRU SAID

The freedom of India must be the symbol of and prelude to the freedom of all other nations.

* * * * *

Peace cannot be purchased by compromise with evil or by surrender to it. Nor can peace be maintained by methods that themselves are the negation of peace.

* * * * *

My vision of a future India contains nether imperialism nor communalism.

* * * * *

Everything has ultimately to be judged in terms of human welfare, and the only real yardstick we can employ is the happiness of our three hundred and sixty million people.

* * * * *

I am convinced that the only key to the solution of the world's problems and of India's problems lies in socialism.

* * * * *

If socialism is to be built up in India, it will have to grow out of Indian conditions, and the closest study of these conditions is essential.

* * * * *

By integration I not only mean constitutional and legal integration but the integration of minds and hearts of the people of India.

* * * * *

Planning is essential, and without it there would be anarchy in our economic development.

* * * * *

The scientific method means Planning. Planning is science in action. Planning has to be flexible; it has to be wide awake and alert.

We attach great value to individual freedom; because we want the creative and advanturous spirit of man to grow. It is not enough for us merely to produce the material goods of the world.

* * * * *

Today the whole world is our neighbour and the old division at continents and countries matters less and less, peace and freedom have become indivisible and the world cannot continue for long partly free and partly subject. In this atomic age, peace has also become a test of human survival.

* * * * *

INSIDE THE STATE

CIVIL SUPPLIES ADVISORY COMMITTEE

Government have been receiving reports from various quarters of difficult food situation in certain pockets of the State due to the failure of monsoons and also rise in prices of essential consumer articles. With a view to checking the spiralling of prices of essential commodities, State Government have formed Citizen Committees at the district and subdivisional levels consisting of representatives of different shades and class of people in order to bring about an understanding between the trade and commerce on the one hand and the consumers on the other so that the tendencies for unscrupulous price rise, hoarding and witholding of commodities from sale could be effectively checked. The Committee is intended to create an atmosphere of confidence in the minds of the consumer's and induce the trade to give up excess profit motive. With a view to activising the committees at the district and subdivisional levels keeping in par with the State Civil Supplies Advisory Committee, the State Government have decided to form district and Subdivisional level Civil Supplies Advisory Committees by reconstituting the existing ones with the following members:—

The district Committee—The Collectors will be the Chairman of the Committee with all M. L. As. and M. Ps. of the district as members. The Civil Supplies Officer will be the Secretary of the Committee.

The Subdivisional Committee—The Subdivisional Officer will be the Chairman with the M. L. As. and M. Ps. of the subdivision as members. The Assistant Civil Supplies Officer or the senior-most Supervisor of Supplies will be the Secretary of the Committee.

NOTE—Where an M. L. A. or an M. P is a Minister or a Deputy Minister of State or Centre or a Speaker or a Deputy Speaker of the Orissa Legislative Assembly, the person nominated by him is to be taken as member in his place.

2. Such Committees may also be formed in cities or towns like Rourkela, Jeypore, Jharsuguda where there is a good wholesale and retail market for consumers goods. For such cities or towns the Collector or the Additional District Magistrate or Subdivisional Officer may function as Chairman with the M. L. As.

and M. Ps. of that area as members. The Assistant Civil Supplies Officer of the Senior Supply Supervisor may act as Secretary.

3. In the Subdivisional and City Committees, persons not exceeding five out of the categories of persons mentioned below may be co-opted as members.

(*i*) A representative of the Press,

(*ii*) A representative of consumers,

(*iii*) A representative of dealers, trade and commerce,

(*iv*) A representative of Marketing and Consumers Co-operatives.

(*v*) A labour representative.

4. The primary function of the Committees will be to watch the fluctuations in price level of essential commodities and bring about an understanding between the trade and commerce on the one hand and the consumers on the other so that the essential commodities are available according to requirements and are sold at fair and reasonable prices. The other functions of the committee would *inter alia* be:—

(*a*) to review the stock and supply position of essential commodities from time to time; and give suggestions for procurement and distribution;

(*b*) to review price position, suggest price rates and measures for holding the price line;

(*c*) to suggest measures for increasing production, improving transport and marketing;

(*d*) to suggest measures to prevent smuggling, black-marketing profiteering and other corrupt practices;

(*e*) if the committee finds it necessary it may direct the Police or Vigilance to investigate into any matter and the report of such enquiry should be submitted to Government and a copy of the same will be sent to the Committee.

5. The Committees will meet as many times as considered necessary.

6. The Collectors of the districts will constitute the committees to function with effect from the 10th June 1967 or earlier.

7. The Subdivisional Committee by a resolution passed by it may constitute small local committees wherever they find necessary to deal with local problems of a particular area under the chairmanship of the local M. L. A. The number of members of the Committee shall not exceed five.

* * *

PHYSICALLY HANDICAPPED PERSONS IN ORISSA

A recent sample survey conducted by the Bureau of Statistics & Economics, Orissa, in the rural and urban areas throughout the State of Orissa has brought out some interesting results regarding the number of blind, deaf, dumb, lepers and lame persons who are physically disabled to carry out normal outdoor activity. The survey was conducted in 2,391 villages and 19 towns and in each selected area every household was enumerated. According to this survey the total number of handicapped persons in the State is estimated at 132 thousand. Of these 123·9 thousand live in villages and the remaining 8·1 thousand are city dwellers. These figures account for an incidence of 6·9 handicapped persons per thousand population in the State, 7·00 per thousand in rural areas and 5·76 per thousand in urban areas. Inspite of the overall low rate of incidence in the towns, lepers are more predominant in urban areas and the percentage of lepers has been found to increase as the size of the community increases. The rate of incidence of lepers is the highest in Sambalpur-Burla-Hirakud town group.

This survey has shown that lame persons i.e., persons, other than lepers, who are disabled or deformed in either of the legs comprise the largest number among the handicapped. Such persons total up to 34·5 thousand followed by blind, lepers, deaf, dumb and cripple accounting for 29·2, 24·8, 21·9, 16·2 and 8·6 thousand persons in the respective categories.

It has been noted that about two thirds of the handicapped persons are aged between 15 and 60 years the span of working life. Persons under 15 years of age claim about 18 per cent. The remaining small percentage belong to the older age group who are above sixty years of age. A substantial portion of the infirmity among the older people is contributed by blindness and deafness.

The incidence of infirmity according to this survey is higher among the males. For each female handicapped there are about two males, the exact ratio being 1:8. The proportion of males is higher in rural and urban areas and also in the separate categories. Only in case of the blind males and females occur almost in equal numbers and in urban areas, the number of blind females exceed blind males.

Considering some of the important causes leading to physical incapacity, it may be noted that about 42 per cent of the handicapped were born with some physical deficiencies while 51 per cent of the handicap was due to the individual having suffered from some disease at some stage in life.

Physical deficiencies caused as a result of accidents claim only 4 per cent of the total handicapped. Persons who were born blind account for 32 per cent of the blind persons where as 60 per cent of the blindness was due to some disease after birth. But in case of dumb persons, about 90 per-cent were born as such.

From what has been observed, there are at least two aspects which deserve attention namely the influx of lepers into urban areas and the presence of about 13 thousand handicapped children under ten years of age in the State.

* * *

HIGH PRIORITY TO MINOR IRRIGATION PROJECTS

In many parts of the country where water from major and medium projects is not available, minor irrigation constitutes the only hope of the farmer for intensive cultivation.

Small irrigation schemes costing less than Rs. 15 lakhs are termed minor irrigation projects. Minor irrigation programmes include surface water schemes such as small stream divisions, storage of rain water in small catchments, renovation and repair of old out of use or dilapidated tanks and wells, lift irrigation canals fed by water pumped from rivers, tapping of ground water etc. The construction and repair of small drainage channels, embankments for flood protection and headwater tanks, 'ahars' and 'bundies' for conserving moisture and replenishing ground water etc. also form part of minor irrigation schemes.

The biggest advantage with the minor irrigation programme is that it yields results quickly. There is not time-lag involved as in the case of big projects. The work is completed in a short time with a small capital investment and affords utilization of local talents and resources.

More stress is laid on minor irrigation schemes in the Five-Year Plans. While the outlay in Third Plan was Rs. 365 crores, the Fourth Plan envisages a target of Rs. 740 crores on minor irrigation projects.

Photo shows farmers irrigating their fields with the help of minor irrigation methods in Bihar. Water is being lifted with the help of baskets from a lower level of the canal to a higher level.

Government of India Scholarships for Scheduled Castes, Scheduled Tribes, Other Backward Class and Lower Income Group Students in 1967-68

Applications are invited up to 15th July 1967 by the Secretary to Government of Orissa, Tribal & Rural Welfare Department, Bhubaneswar, Orissa for grant of Post-Matric Scholarships to the Scheduled Castes, Scheduled Tribes and Lower Income Group students who were in receipt of such Scholarships during 1966-67 and are continuing in the same course of studies and are entitled to the grant of renewal scholarships as per terms and conditions given below.

Other Backward Class students will continue to receive Post-Matric Scholarships who were sanctioned scholarships under the scheme in accordance with the terms and conditions as were in force in the year 1962-63, until they get degree or diploma for which they are studying. Renewal scholarships will be sanctioned if they have got promotion to the next higher class of the same course of studies.

The renewal scholarships will be governed by the regulations which may be obtained from the Heads of the Institutions. The renewal application form may be obtained from the Head of the Institutions.

In order to be eligible for renewal scholarship, the applicant must have been promoted to the next higher class and he/she shall furnish along with his/her applications from, a certificate from the Head of the Institution that he/she has been promoted to the next higher class. He/She should also furnish the acknowledgement receipt for the amount received by him/her during 1966-67 as Post-Matric Scholarship.

Students who were in receipt of scholarships, in the previous years but have completed one stage of education, that is Pre-University Arts, Science Pre-Professional Science 1st year degree, or pre-medical, B. A. or M. A. etc., will be treated as fresh cases and not as renewal cases, since the course of study which they will undertake after passing these examinations will not be continuous. A student getting scholarship in the second year degree and promoted to the 3rd year class will be treated as a renewal case. If a student is promoted to the next higher class even though he may not have actually passed in the Lower Class and is required to take examination of the Junior Class again after some time, he will be entitled to get scholarship as a renewal student. Applications duly forwarded by the Head of the Institutions should reach, the Secretary to Government, Tribal & Rural Welfare Department by July 15th 1967 at the latest.

RURAL INDUSTRIALISATION THROUGH COMMON PRODUCTION PROGRAMMES

A wide range of industries are covered under the village and small industries ranging from handicrafts, coir, sericulture, khadi, handlooms, vegetable oils, gur, paper, leather goods, etc. to bicycles, radio parts, sewing machines cutlery, locks and buttons.

The Government is encouraging the growth of these industries with a view to provide greater employment opportunities in the countryside and backward areas, mobilise capital and skill in the villages and to distribute national income more equitably in the country.

The village and small industries play a pivotal role in the economy of the country by manufacturing small consumer items of daily use which are either too small or uneconomical to be manufactured by large industrial units. About 8 million persons are employed either on part time or full time basis in these industries.

The production of cloth by handlooms and powerlooms is estimated to have increased from 2013 million metres to 3056 million metres, khadi from 59 million metres to 90 million metres and raw silk from 1·50 million kgs. to 2·15 million kgs. during 1960—65. The earnings from export of handicrafts, coir, handlooms and silk products has increased from about Rs. 25 crores in 1960-61 to about Rs. 54 crores in 1965-66.

Vigorous efforts are being made to accelerate rural industrialisation during the Fourth Five-Year Plan. Potential growth centres in rural and urban areas where basic facilities such as electricity, agricultural raw material and transport facility is available would be identified and necessary assistance would be provided to these growth centres in the shape of credit technical advice and service facilities.

Khadi has occupied an important place in the development programmes of rural industries. Its sale and production has risen tremendously. In 1952—55, the total sale of khadi was Rs. 2 crores, it rose to over Rs. 21 crores during 1964-65.

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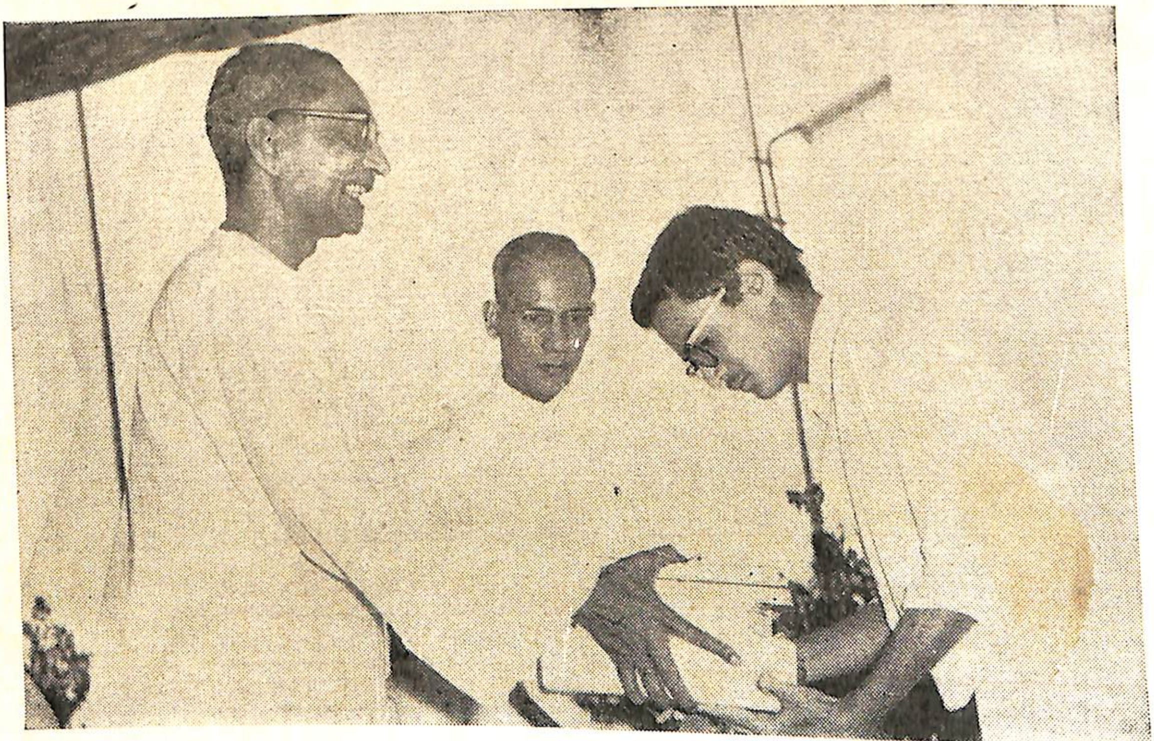
DR. RADHAKRISHNAN LEAVES NEW DELHI FOR MADRAS

After laying down the office of the President of India, Dr. S. Radhakrishnan left New Delhi for Madras by a special train on May 13, 1967. An affectionate send-off was given to the outgoing President at New Delhi Railway Station by a large crowd, which included, the new President Dr. Zakir Husain, the Prime Minister Shrimati Indira Gandhi, Union Ministers and diplomatic corps.

Photo shows—Dr. Radhakrishnan bidding farewell to the crowd before entering the special train. Dr. Zakir Husain, Shrimati Gandhi and the Deputy Prime Minister Shri Morarji Desai are also seen in the picture.



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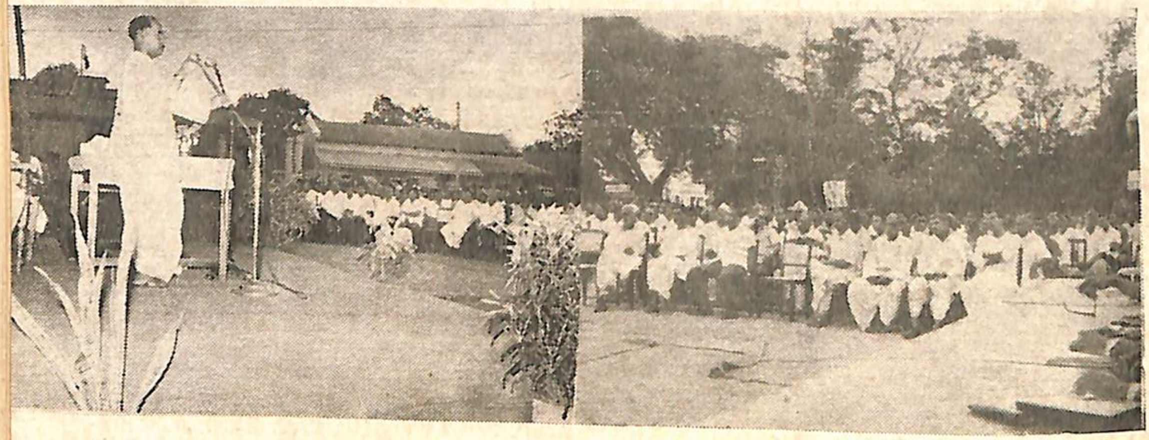
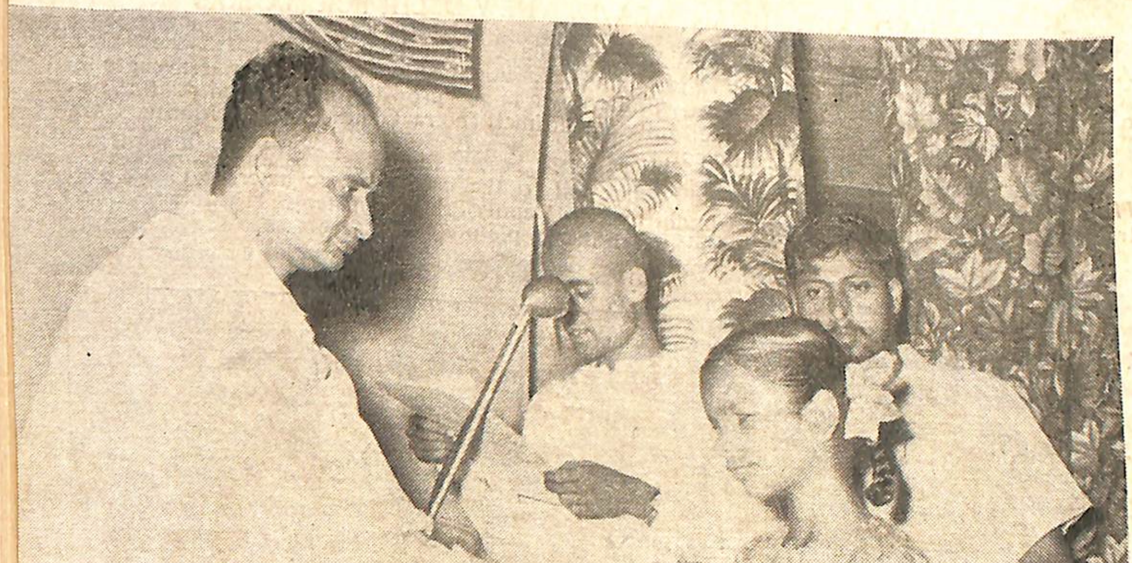


The Deputy Chief Minister, Orissa, addressing a conference of Officials and Non-Officials in the Collectorate ground, Sambalpur and explaining the aims and policies of the Government



Shri Nityananda Mohapatra, Minister for Cultural Affairs giving away prizes to the students of the Blind, Deaf and Dumb School, Bhubaneswar at the Annual Day ceremony of the institution on May 10th 1967.

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